CA ZAMBIA PROGRAMME EXAMINATIONS

CA CERTIFICATE IN ACCOUNTANCY

CA 1.1: FINANCIAL ACCOUNTING

MONDAY 9 JUNE 2025

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: There are FIVE (5) questions in this section. Attempt question TWO (2) and any other THREE (3) questions from the remaining FOUR (4) 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

QUESTION ONE

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 statements is INCORRECT?

A. The accumulated depreciation of the disposed asset is removed from the accumulated depreciation account upon disposal of the asset.

B. Depreciation is not a cash expense.

C. The carrying amount of the non-current asset is the difference between the fair value and the historic cost of the non-current asset.

D. Depreciation charge per annum on non-current assets is recorded in the depreciation expense account in the nominal ledger.

(2 marks)

1.2 Consider the following statements about going concern:

(i) Unless indicated otherwise, financial statements must be prepared on the going concern basis.

(ii) If a business is not considered to be a going concern, financial statements should not be prepared.

Which of the statements is/are correct?

A. (i) only
B. (ii) only
C. Both (i) and (ii)
D. Neither (i) nor (ii)

(2 marks)

1.3 Muzoe began trading on 1 July 2022. The company is now preparing its accounts for the accounting year ended 30 June 2023. Rent is charged according to the landlord's calendar year, which runs from 1 April to 31 March, and was K180,000 for the year ended 31 March 2023 and K200,000 for the year ended 31 March 2024. Rent is payable quarterly in advance, plus any arrears on 1 March, 1 June, 1 September, and 1 December.

What is the rent charge to Muzoe's profit or loss statement for the year ended 30 June 2023?

A. K135,000

B. K185,000

C. K200,000

D. K150,000

(2 marks)

1.4 At 1 October 2022, the receivable allowance of Buunda was K58,000. During the year ended 30 September 2023 irrecoverable debts totaling K24,800 were written off. At 30 September 2023, receivables were K534,700 and the required allowance was K45,400.

What amount should appear in Buunda's statement of profit or loss for receivables expense for the year ended 30 September 2023?

A. K45,400

B. K24,800

C. K37,400

D. K12,200

(2 marks)

1.5 Which ONE of the following is a function of the IFRS Foundation?

A. Complete responsibility for the preparation and publication of International Financial
Reporting Standards (IFRSs).

B. Approving annually the budget and determining the funding of the International Accounting Standards Board (IASB).

C. To inform the IASB of the views of organizations and individuals on major standard setting projects.

D. To review new financial reporting issues not yet covered by an IFRS.

(2 marks)

1.6 The company uses an imprest system to control its Petty Cash. The float is K5,000 at 1 January 2024. Payments for the month totaled K2,500 and main cashier wishes to increase the float to K6,000 at the start of February 2024. How much should the Petty cashier be re-imbursed if receipts into Petty cash in January 2024 from use of telephone amounted to K250.

A. K3,050

B. K3,000

C. K3,250

D. K2,500

(2 marks)

1.7 The following information relates to bank reconciliation:

(i) The bank balance in the cash book before taking the items below into account was K13,455 overdrawn.

(ii) Bank charges of K825 on the bank statement have not been entered in the cash book.

(iii) The bank has credited the account in error with K638 which belongs to another customer.

(iv) Cheque payments totaling K4,912 have been entered in the cashbook but have not been presented for payment.

(v) Cheques totaling K8,070 have been correctly entered on the debit side of the cashbook but have not been paid in at the bank.

What was the balance as shown by the bank statement before taking the above items into account?

A. K14,280 overdrawn

B. K16,800 overdrawn

C. K14,730 in credit

D. K16,800 in credit

(2 marks)

1.8 In company accounts, the issue of new shares under a rights issue during the accounting period are shown in which financial statement?

A. Statement of changes in equity.

B. Statement of comprehensive income.

C. Statement of financial position.

D. Statement of cash flows.

(2 marks)

1.9 Bwalya and Kabwe are in partnership business sharing profits and losses in the ratio of 3:2. The balances on their capital and current accounts at the beginning of their financial period were as follows:

	Bwalya	**Kabwe**
	K	K
Capital account	160,000	120,000
Current accounts	20,000 credit	24,000 credit

Kabwe is paid a notional salary of K50,000 per annum and both partners take interest on capital at 7% per annum. During the year just ended, the partnership business made profit of K260,000 and Bwalya drew K4,500 per month from the business.

What was the balance on Kabwe's current account at the end of the year?

A. K158,560 credit

B. K145,440 credit

C. K91,440 credit

D. K108,560 credit

(2 marks)

1.10 Co. is producing its statement of cash flows for the year ended 31 December 2023. The accountant has identified the following balances in the financial statements:

	K
Loans redeemed	82,000
Dividends paid	185,000
Increase in share capital	55,000

What is the net cash flow from financing activities?

A. (K133,000)

B. (K212,000)

C. (K187,000)

D. K80,000

(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.

QUESTION TWO – (COMPULSORY)

Elliana Company limited is a business set up by a group of recent graduates from the university while waiting to be employed, they purchase and supply Beans to the local market. The business is in the process of seeking finance from a local bank and preliminary inquiries are that the local bank will require a statement of cash flows as part of the basis for eligibility assessment.

In view of this, Elliana Company Limited has contacted you for assistance with the preparation of the statement of cash flows. However, the accounts assistant of Elliana Company has told you that fire swept through the finance department and that only a hard copy of a statement of financial position for the past two years was recovered in full and that only part of the data from the statement of profit or loss was recovered. The data presented to you is as follows:

Partial statement of profit or loss for year ended 30 September 2023:

	K'000
Operating profit	415
Finance cost	(40)
Profit before tax	375
Income tax	(175)
Profit for the year	200

The statements of financial position of Elliana Company Limited at 30 September 2022 and 30 September 2023 respectively are given below:

	2022	**2023**
	K'000	**K'000**
Non-current assets		
Property, plant and equipment	1,900	2,450
Current assets		
Inventory	405	450
Receivables	400	430
Bank	70	35
Total current assets	875	915

Total assets	2,775	3,365
Equity and liabilities		
Ordinary share capital of K1 each	500	650
Share premium	250	400
Revaluation reserve	-	250
Retained earnings	880	1,015
Total equity	1,630	2,315
Non-current liabilities		
10% loan notes	500	250
Current liabilities		
Trade payables	330	360
Bank overdraft	65	90
Tax payables	250	350
Total current liabilities	645	800
Total equity and liabilities	2,775	3,365

The following additional information is relevant:

(1) Loan notes interest is due half yearly on 31 March and 30 September each year and was paid on the due dates. 50% of the loan note outstanding on 30 September 2022 was paid on 30 September 2023.

(2) On 1 August 2022, a piece of equipment that had a cost of K500,000 and a carrying amount of K100,000 was sold for K125,000.

(3) Shares were issued for cash during the year ended 30 September 2023.

(4) Details of property, plant and equipment on the dates indicated were as follows:

	30 September 2022	**30 September 2023**
	K'000	**K'000**
Cost	3,000	3,650
Accumulated depreciation	(1,100)	(1,200)
Carrying amount	1,900	2,450

(iv) Elliana Company Ltd paid dividends during the year.

Required:

(a) Prepare a statement of cash flows for Elliana Company Ltd for the year ended 30 September 2023.

(16 marks)

(b) Explain four (4) advantages of cash flow accounting to various users of accounting information. (4 marks)

[Total: 20 Marks]

QUESTION THREE

The accounting cycle describes how transactions are analysed, first recorded in the books of prime entry, summarized, totaled and posted to the relevant accounts in the nominal ledger.

Muzeya, a sole trader with no accounting background, supplies desks to both primary and secondary schools in his home town of Monze, as a beneficiary of the Constituency Development Fund (CDF).

You work as a book-keeper for Muzeya and he has asked you to help him begin to understand a few issues in accounting.

Required:

(a) Explain the phrase, 'books of prime entry'. (2 marks)

(b) Describe the nature of transactions that are summarized in purchases and sales day books, clearly specifying source documents used to enter up each day book. (6 marks)

(c) Distinguish between 'trade' and 'cash' discounts. (6 marks)

(d) While you were away on leave, Muzeya committed the following errors in a particular month:

(i) A purchase invoice for K5,000 was entered as credit note onto the sales day book and a credit note for K500 sent to a customer was entered into the purchases day book.

(ii) Purchase invoices totaling K100,000 had not been entered into the purchases account in the nominal ledger.

(iii) A purchase invoice for K150,000 had been entered in the purchases day book twice.

(iv) Further capital introduced into the business by Muzeya amounting to K200,000, had been credited to the loan account.

Required:

Identify the category of each of the errors (i) – (iv), clearly indicating whether the error affects the suspense account or not. (6 marks)

[Total: 20 Marks]

QUESTION FOUR

(a) You are presented with the following extracts relating to Muna Ltd.

Statement of profit or loss extract for the year ended 31 March 2024:

	K'000
Gross profit	2,940
Depreciation expense	(150)
Other operating expenses	(1,275)
Finance costs	(765)
Profit before tax	750
Income tax	(150)
Profit for the year	600
Other comprehensive income:	
Revaluation surplus	150
Total comprehensive income	750

Statement of financial position as at 31 March:

Non-current assets:	2024	2023
	K,000	K,000
Property, plant, and equipment cost	10,500	9,000
Less accumulated depreciation	(6,900)	(6,300)
Carrying amount	3,600	2,700
Equity and liabilities:		
Equity shares of K1 each	9,600	8,400
Share premium	1,200	100
Retained earnings	4,710	4,200
Revaluation surplus	550	400
Total equity	16,060	13,100
Current liabilities:		
Tax payable	700	1,000
Accrued interest	500	825
	1,200	1,825

The following additional information is relevant:

During the year ended 31 March 2024, property that had carrying amount of K490,000 were sold for K435,000. The loss on the disposal has been included in operating expenses in the above statement of profit or loss extract.

Required:

Calculate, for the year ended 31 March 2024,

(i) Cash paid to acquire property, plant and equipment. (3 marks)

(ii) Proceeds from the issue of shares. (2 marks)

(iii) Dividends paid. (1½ marks)

(iv) Income tax paid. (2 marks)

(v) Interest paid. (1½ marks)

(b) You have further, been presented with the following ledger account balances as at 1 April 2023:

Trade receivables	K300,000
Allowance for receivables	K12,000

Muna Ltd. informs you that the following transactions took place during the year ending 31 March 2024:

	K
Credit sales	3,000,000
Returns from credit sales	30,000
Receipts from customers (including cash customer receipts of K30,000)	270,000
Irrecoverable debts written off	15,000
Contra with payables	155,000
Refunds to customers	130,000

Muna Ltd wishes to make an allowance for receivables of 5% of the receivables on 31 March 2024.

Required:

Write up the following accounts for Muna Ltd for the year ended 31 March 2024:

(i) Receivables control account, (7 marks)

(ii) Receivables expense account and (1½ marks)

(iii) Allowance for receivables account. (1½ marks)

[Total:20 Marks]

QUESTION FIVE

Libala South Aerobics Club had the following receipts and payments during the year ended 31 December 2023:

RECEIPTS	K'000	PAYMENTS	K'000
Cash at bank	1,800	Secretarial expenses	430
Sales of competition tickets	900	Travel expenses	640
Members subscription	5,600	Rent	2,400
Donations	250	Donations to charity	55
Sales of refreshments	890	Stationery and printing	182
		Prizes for competition	65
		Purchase of refreshments	500
		Wages of bar attendant	280
		Supplier of new equipment	1,600
	____	Balance c/d	3,288
	9,440		9,440

The following account balances at 31 December were available:

	2022	2023
	K'000	K'000
Subscription in arrears	70	85
Subscription in advance	40	55
Inventory of competition prizes	28	32
Inventory of refreshments	165	175
Owing to suppliers of refreshments	145	130
Equipment (Original cost at 31 December 2022 being K4.8 million)	2,000	6,200

During the year, equipment costing K5 million was bought on credit from Jahgift Enterprises but no record of this was made in the Club's books.

Required:

(a) Calculate the amount of accumulated fund as at 1 January 2023. (3 marks)

(b) Calculate the amounts for:

- (i) Subscription (3 marks)
- (ii) Profit on refreshments (2 marks)
- (iii) Surplus on competition event held (2 marks)

(c) Prepare the Cub's Income and Expenditure Account for the year ended 31 December 2023. (5 marks)

(d) Prepare Club's statement of financial position as at 31 December 2023. (5 marks)

[Total: 20 Marks]

QUESTION SIX

(a) In line with companies and companies' capital structure, there are legal ways in which a company may increase its share capital.

Required:

Explain what a bonus issue is and what a rights issue is, clearly stating reasons, which one would be appropriate to consider by an entity that has expansion plans. (4 marks)

(b) The following trial balance was extracted from the books of Hamusonda plc as at 31 March 2024.

	K	K
10% Loan notes		300,000
Land and buildings (Land cost K90,000	390,000	
Accumulated depreciation – Buildings		90,000
Plant and machinery (cost K1,044,000)	787,500	
Motor vans at cost	420,000	
Accumulated depreciation – Motor vans		170,400
Retained earnings balance 1 April 2023	60,000	
Share premium		180,600
Inventory 1 April 2023	105,000	
K1 Ordinary shares		600,000
8% K1 irredeemable preference shares		210,000
Loan notes interest	21,000	
Interim dividends paid: Ordinary dividends	30,000	
Preference dividends	8,400	
Receivables and payables	144,000	81,000
Sales		1,038,300
Bank	17,400	
Purchases	498,300	
Distribution costs	54,000	
Administrative expenses	134,700	
	2,670,300	**2,670,300**

The following additional information is relevant for the year under review:

(i) A motor van that cost K48,000 three (3) years ago was sold for K21,000 on 1 January 2024. The proceeds from this sale had not yet been received on 31 March 2024. No record of this transaction was made in Hamusonda plc's books.

(ii) Depreciation of non-current assets is to be provided for as follows:

Motor vans	20% per annum on cost
Buildings	5% per annum on cost
Plant and machinery	10% per annum on reducing balance basis.

Depreciation of buildings and motor vans is to be charged to administrative expenses while that of plant and machinery is to be charged to cost of sales.

Hamusonda plc's depreciation policy is to charge a full year's depreciation in the year of purchase and none in the year of disposal.

(iii) Land and buildings were revalued upwards by K15, 000 on 31 March 2024.

(iv) Hamusonda plc's inventory on 31 March 2024 was valued at K153,000.

(v) Final dividends were declared on 20 March 2024 by directors on all shares in issue on the date as follows:

Final ordinary dividends at 5%.
Final preference dividends.

(vi) Corporation tax for the year had been estimated at K54,000.

(vii) On 1 October 2023, Hamusonda plc made a rights issue of 3 for every 2 equity shares for a price of K5 per share. This issue had not yet been recorded in Hamusonda plc's books.

Required:

(1) Prepare a statement of profit or loss and other comprehensive income of Hamusonda plc for the year ended 31 March 2024. (11 marks)

(2) Prepare a statement of changes in equity for the year ended 31 March 2024 for Hamusonda plc. (5 marks)

[Total: 20 Marks]

END OF PAPER

CA 1.1 FINANCIAL ACCOUNTING – SUGGESTED SOLUTIONS

SOLUTION ONE

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

SOLUTION TWO

(a) Elliana Company Ltd statement of cash flows for the year ended 30 September 2023

	K'000	K'000
Cash flows from operating activities:		
Profit before tax	375	
Add depreciation expense (w3)	500	
Add interest expense	40	
Less profit on disposal (w4)	(25)	
Movements in working capital:		
Increase in inventory (405-450)	(45)	
Increase in receivables (400-430)	(30)	
Increase in payables (330-360)	30	
Cash generated from operations	845	
Interest paid	(40)	
Tax paid (w5)	(75)	
Net cash inflow from operating activities		730
Cash flows from investing activities:		
Proceeds from the sale of property, plant and equipment	125	
Cash paid to acquire property, plant and equipment (w2)	(900)	
Net cash flows from investing activities		(775)
Cash flows from financing activities:		
Proceeds from the issue of shares (1,050 – 750)	300	
Loan repaid	(250)	
Dividends paid (w6)	(65)	
Net cash flows from financing activities		(15)
Decrease in cash and cash equivalents		(60)
Cash and cash equivalents at start (70 - 65)		5
Cash and cash equivalents at end (35 - 90)		(55)

Workings

1) Cash and cash equivalents

	2022	2023
	K'000	K'000
Bank	70	35
Bank overdraft	(65)	(90)
Cash and cash equivalents	5	(55)
Therefore, decrease in cash and cash equivalents is		60

2) Property, plant and equipment at cost account

	K'000	K'000
Balance b/f	3,000	
Disposal		500
Revaluation surplus	250	
Bank (balance)	900	
Balance c/f		3,650
	4,150	4,150

3) Depreciation expense for the year:

	K'000
Accumulated depreciation b/f	1,200
Add: depreciation of disposed of plant	400
	1,600
Less depreciation b/f	1,100
Profit and loss	500

4) Profit or loss on disposal of PPE

	K'000
Carrying amount of disposed asset	100
Proceeds of disposal	(125)
Profit on disposal	(25)

5)	Income tax paid:	K'000
	Balance b/f	250
	Add charge to profit or loss	175
	Less balance c/f	(350)
	Tax paid	75

6)	Dividends paid	K'000
	Retained earnings b/f	880
	Add profit for the year	200
	Less retained earnings c/f	(1,015)
	Dividends paid	65

b) Two advantages cash flow accounting to various users of accounting information include:

(i) Directs management's attention towards entity's ability to generate cash
(ii) More comprehensive way to measure performance and compare with other companies or same company from year to year.
(iii) Easier to understand and to audit
(iv) Cash flow reporting satisfies the needs of all users better, for example, decision making by management; stewardship to shareholders and auditors as well as employees.

SOLUTION THREE

(a) These are books in which all business transactions are initially recorded before posting them in double entry. They are a way to group transactions according to their nature, to summarize them and reduce the volume of double entry records. They are also known as books of original entry.

(b) Purchases day book – this is a book of prime entry used to list all invoices received from suppliers for credit purchases as well as credit notes received from the supplier for return of goods previously purchased on credit. Put another way, the purchases day book lists suppliers and value of credit purchases from them and returns on the same to them. It is not part of double entry recording. The source document used to record transactions in the purchases day book is a purchase invoice.

Sales day book – this is a book of prime entry used to list all invoices sent to customers for credit sales as well as credit notes sent to customers for return of goods previously sold on credit. Put another way, the sales day book lists customers and value of credit sales from them and returns on the same from them. It is not part of double entry recording. The source document used to record transactions in the sales day book is a sales invoice.

(c) The differences between trade (quantity) and cash (settlement) discounts are summarized below:

	Trade (quantity) discount	Cash (settlement) discount
1.	A discount given for ordering in large quantities, or as an incentive for regular customers	A discount given for early payment of a debt, i.e. within a specified time.
2.	A reduction in the selling price at the time of sale	A reduction in amount received from customer at a time of receipt.
3.	A definite reduction in the amount of money demanded from a customer.	An optional reduction in the amount of money payable by a customer.
4	No separate accounting is required. Never recorded in double entry form	Needs to be recorded separately in the books of account. It means its recorded in double entry form and result in discounts allowed and discounts received.
5	Permanent in nature	It is conditional in nature.

(d)

(i) Compensating error (principle to be accepted) - no effect on suspense account.
(ii) Part omission error - suspense account affected.
(iii) Error of original entry. No effect on suspense account
(iv) Error of principle - no effect on suspense account.

SOLUTION FOUR

(a)

(i) Property, plant, and equipment account

DR	K'000	CR	K'000
Balance b/f	2,700	Disposal	490
Revaluation increase	150	Depreciation expense	150
Bank (bal fig)	1,390	Balance c/d	3,600
	4,240		4,240

(ii) Proceeds from the issue of shares:

	K'000
share capital + share premium c/f (9,600+1,200)	10,800
less share capital+ share premium b/f (8,400+100)	(8,500)
	2,300

(iii) Dividends paid:

	K'000
Retained earnings b/f	4,200
Plus, profit for the year	600
Less retained earnings c/f	(4,710)
	90

(iv) Income tax payable account (income tax paid) =K450,000

	K'000		**K'000**
Bank (Bal fig)	450	Balance b/f	1,000
Balance c/f	700	Income tax expense	150
	1,150		1,150
		Balance b/d	700

(v) Interest expense account (interest paid) = K790,000

	K'000		**K'000**
Bank (bal fig)	790	Balance b/f	825
Balance c/f	800	Interest expense	765
	1,590		1,590
		Balance b/d	800

(b) (i) Receivables ledger control account

	K'000		**K'000**
Balance b/f	300	Sales returns	30
Sales	3,000	Bank	240

Refunds	130	Irrecoverable debts	15
		Contras	155
		Balance c/d	2,990
	3,430		3,430
Balance b/d	560		

(ii) Receivables expense account

	K'000		**K'000**
Receivables control	15	Profit and loss	153
Allow. for receivables	128		
	153		153

(iii) Allowance for receivables account

	K'000		**K'000**
		Balance b/f	12
Balance c/d (5%*560)	150	Receivable expense	138
	150		150
		Balance c/d (5%*560)	150

SOLUTION FIVE

Calculation of Accumulated Fund

(a) Assets:	K'000	K'000
Equipment	2,000	
Subscription in arrears	70	
Inventory - Competition prizes	28	
Inventory - Refreshments	165	
Cash at Bank	1,800	
		4,063
Liabilities:		
Subscription in arrears	40	
Suppliers of refreshments	145	
Expense charge to SPL		185
Accumulated Fund		**3,878**

(b) (i)

SUBSCRIPTION ACCOUNT

	K'000		K'000
Balance b/d	70	Balance b/d	40
Income & Expenditure	5,600	Cash /bank	5,600
Balance c/d	55	Balance c/d	85
	5,725		5,725

(ii) **CALCULATION OF PROFIT ON REFRESHMENTS:**

	K'000	K'000
Sales		890
Opening inventory	165	
Add: Purchases (500 + 130 – 145)	485	
	650	
Less: Closing Inventory	(175)	
	(475)	
		415
Wages of attendant		(280)
Profit on refreshments		135

(iIi) **CALCULATION OF SURPLUS ON COMPETITION PRIZES:**

	K'000	K'000
Sales of prizes		900
Opening inventory at start	28	
Purchases of prizes	65	
	93	
Closing inventory	(32)	
		(61)
Surplus on prizes		839

(c) **Libala South Aerobics Club**

INCOME & EXPENDITURE FOR THE YEAR ENDED 31 MARCH 2023

Income:	**K000**	**K000**
Subscription	5,600	
Profit on refreshment	135	
Surplus on -Competition prizes	839	
Donations	250	
		6,824
Expenses:		
Secretarial expenses	430	
Travel expenses	640	
Depreciation (2,000+5,000-6,200)	800	
Donations to charity	55	
Stationery and printing	182	
Rent	2,400	
		(4,507)
Surplus		2,317

(d) **STATEMENT OF FINANCIAL POSITION AS AT 31 MARCH 2023**

	K'000	K'000
Non-Current Assets:		
Equipment -Carrying amount		6,200
Current Assets:		
Inventories - Refreshments	175	
Inventories - Prizes	32	
Subscription in arrears	85	
Cash at Bank	3,288	
		3,580
		9,780
Accumulated Fund:		
At start	3,878	
Retained Earnings	2,317	
		6,195
Non-Current Liabilities:		
Current Liabilities:		
Supplier of refreshment	130	
Subscription in advance	55	
Supplier of Equipment (5,000 – 1,600)	3,400	
		3,585
		9,780

SOLUTION SIX

(a) Bonus issue is an issue of shares to existing shareholders for free, that is, they do not pay for the shares and the shares are issued in proportion to their existing holding. It is merely a way for the entity to capitalize its reserves and increase the number of shares in issue.

A rights issue is an offer by the entity to issue shares to current shareholders on a prorate basis in relation to their existing shareholding. Rights issues are made at less than their market value.

An entity that has expansion plans needs to make a rights issue as it raises cash for the entity whereas bonus issue would not raise the needed cash for expansion.

(b) (i) Hamusonda Plc.

Statement of profit or loss and other comprehensive income for the year ended 31 March 2024.

	'K'
Sales	1,038,300
Less cost of sales (w1)	(529,050)
Gross profit	509,250
Administrative expenses (w1)	(222,300)
Distribution costs	(54,000)
Operating profit	232,950
Finance cost	(30,000)
	202,950
Corporation Tax	(54,000)
Profit for the year	148,950
Other comprehensive income:	
Revaluation surplus	15,000
Total comprehensive income	163,950

(ii) Hamusonda's Statement of changes in equity for the year ended 31 March 2024

	Preference Share Capital	Equity share capital	Share premium	Revaluation reserve	Retained earnings
	'K'	**'K'**	**'K'**	**'K'**	**'K'**
Balances b/f	210,000	600,000	180,600		(60,000)
Issue of shares		900,000	3,600,000		
Total comp. inc.				15,000	148,950
Dividends paid					(121,800)
Balances c/f	210,000	1,500,000	3,780,600	15,000	(32,850)

END OF SUGGESTED SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA CERTIFICATE IN ACCOUNTANCY

CA 1.2: BUSINESS STATISTICS

WEDNESDAY 11 JUNE 2025

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: There are FIVE (5) questions in this section. Attempt QUESTION TWO (2) and any other THREE (3) questions from the remaining FOUR (4) 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.

QUESTION ONE

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 The following represent qualitative data except:

A. Gender of a person.

B. Age of a person.

C. Choice on a test item: true or false.

D. Marital status of a person.

(2 marks)

1.2 A saloon owner observes the customers entering her shop. If a random variable X represent the number of customers entering every 30 minutes, the results are shown in the probability distribution below:

X	0	2	5	6
P(X)	0.12	0.34	0.45	0.09

What is the expected value of number of customers?

A. 3.47

B. 1

C. 3.25

D. 0.25

(2 marks)

1.3 The monthly income (in thousand kwacha) of six employees was recorded as: 39, 34, 24, 31, 35, 42. Calculate the standard deviation of this data.

A. 205

B. 34.17

C. 6.306

D. 5

(2 marks)

1.4 The simple linear regression model is expressed as $\hat{y} = 23 - 40.2x$. Which of the following best describes the values 23 and -40.2 respectively.

A. Independent variable, dependent variable.

B. Slope, regression coefficient.

C. Radius, intercept.

D. Intercept, slope.

(2 marks)

1.5 The following data represents score of candidates in an aptitude test:

12, 45, 17, 56, 65, 34, 30, 67, 45, 50. Calculate the range of this data.

A. 55

B. 42.1

C. 45

D. 12

(2 marks)

1.6 Which of the following best states a number which represents the difference between the highest and lowest value of a set of numerical data.

A. Inter-quartile deviation.

B. Variance.

C. Median.

D. Range.

(2 marks)

1.7 Epidemiologist studies the relationship between the time taken for BP medication and the resulting BP. If (x) represent the time medicine is taken and (Y) the resulting BP. The results for 8 observations were summarized as shown below:

$\sum x = 155$	$\sum y = 410$	$\sum x^2 = 3265$	$\sum xy = 8740$	$\sum y^2 = 23850$

What is the Pearson correlation between $x \text{ and } y$?

A. 0.9237

B. 0.8532

C. 0.0713

D. 0.1468

(2 marks)

1.8 Two events A and B are such that P(A)=0.5 and P(AUB)=0.8. Find the value of P(B) when A and B are mutually exclusive.

A. 0.13

B. 0.625

C. 0.4

D. 0.3

(2 marks)

1.9 Paul writes six examination in his first year degree studies. If the grades obtained in five courses are 70, 84, 90, 61 and 75. What was the score of his sixth examination if the average for the six courses is 77?

A. 82

B. 76

C. 63.3

D. 380

(2 marks)

1.10 The mean of 15 terms is 40. The sum of all observations is:

A. 26,960

B. 600

C. 500

D. 26,543

(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) The following data give the number of coolers sold by a certain company.

Year	1998	1999	2000	2001	2002	2003	2004
Number of coolers sold	86	96	116	111	156	154	177

Required:

(i) Find the trend by the method of least squares (8 marks)

(ii) Estimate the sales figures of the number of coolers for the year 2005.

(2 marks)

(b) A company consists of seven workers paid at K100 per hour and their supervisor who is paid at K500 per hour. Compute

(i) The mean of all the eight workers. (2 marks)

(ii) The median of all the eight workers. (1 mark)

(iii) The mode of all the eight workers. (1 mark)

(c) Using the answers in (b) above, write down, with a reason, which of the mean, mode and median you would use in the following situations.

(i) When asked the typical hourly rate of pay for the company (2 marks)

(ii) When trying to persuade a prospective employee to work for the company.

(2 marks)

(d) Define a time series. (2 marks)

[Total: 20 Marks]

QUESTION THREE

(a) In a survey with a sample of 200 respondents, the monthly income of the respondents follows the normal distribution with its mean K10,000 and standard deviation as K2,000. What is the probability that:

Required:

(i) The monthly income is less than K11, 000? (3 marks)

(ii) The monthly income is more than K12,000? (3 marks)

(iii) The monthly income is in between K7,000 and K11,000? (5 marks)

(iv) Find the number of respondents having income in between K7,000 and K11,000. (2 marks)

(b) The blood glucose of 30 females is recorded. The results, in mmol/litre, are shown in the stem and leaf diagram below.

Stem	Leaf **Key: 2/1 means 2.1**
2	2 2 3 3 5 7
3	1 2 6 7 7 7 8 8 8 8 9 9 9
4	0 0 0 0 4 5 6 7 8
5	1 5

(i) Find the first quartile (2 marks)

(ii) Find the third quartile (2 marks)

(iii) Find any outliers. (3 marks)

[Total: 20 Marks]

QUESTION FOUR

(a) The following table represent amount of money (thousands of kwacha) claimed from by 25 clients of XP Insurance Company:

Amount of money (K'000)	Number of claimants
3 – 10.2	5
10.2 – 17.2	8

17.2 – 24.6	7
24.6 – 31.8	3
31.8 – 39	2

Required:

Complete the frequency distribution table indicating the relative frequency, cumulative frequency, and cumulative relative frequency. (6 marks)

(b) Treating the data in (a) as a population set of data determine the following;

(i) The variance of the number of business trips for the 25 adjusters. (5 marks)

(ii) The standard deviation of the number of business trips for the 25 adjusters. (2 marks)

(iii) The mean deviation of the number of business trips for the 25 adjusters. (5 marks)

(iv) The coefficient of variation for the data. (2 marks)

[Total: 20 Marks]

QUESTION FIVE

(a) The value of sales (in thousands of kwachas) of sports equipment by a mega department store is shown for each period of three months as follows:

		Quarter		
Year	I	II	III	IV
2005				24
2006	8	30	60	20
2007	20	50	80	40
2008	40	62	92	

Using the additive model, find the centered moving average trend. (14 marks)

(b) The arithmetic mean of the marks obtained by 50 students was calculated as 44. It was later discovered that a score of 36 was missed as 56. Find the correct value of the arithmetic mean of the marks obtained by the students. (4 marks)

(c) State a practical situation where you will recommend the use of the median. (2 marks)

[Total: 20 Marks]

QUESTION SIX

(a) The table below shows the material cost (thousands kwacha) of construction a solar plant in Lusaka and Chama district.

Material	Lusaka	Chama
Solar panels	K30	K120
Batteries	K90	K90
Stands	K20	K40
Copper wires	K50	K20

(i) Determine the proportion of cost of batteries in each of the two (2) districts. (4 marks)

(ii) Construct pie charts representing the proportions of material for the two districts. (8 marks)

(b) A cinema has a task to estimate the number of movies to be shown. Past experience of number of movies shown in a year and their demand are shown in the table below.

Number of movies	Probability of demand
200	0.2
350	0.4
500	0.3
800	0.1

(i) Determine the average number of movies. (3 marks)

(ii) Calculate the standard deviation of the data in the table above. (5 marks)

[Total: 20 Marks]

END OF PAPER

CA 1.2 BUSINESS STATISTICS – SUGGESTED SOLUTIONS

SOLUTION ONE

1.1 B

1.2 A

1.3 C

1.4 D

1.5 A

1.6 D

1.7 A

1.8 D

1.9 A

1.10 B

SOLUTION TWO

(a)

i. Let $Y_c = a + bx$ be the equation of trend

Year (x)	**x**	**Number of coolers** (y)	x^2	xy
1998	1	86	1	86
1999	2	96	4	192
2000	3	116	9	348
2001	4	111	16	444
2002	5	156	25	780
2003	6	154	36	924
2004	7	177	49	1239
Total	28	$\sum y = 896$	140	4013

$b = \frac{\sum xy - n\sum x \sum y}{\sum x^2 - n(\sum x/n)^2} = \frac{4013-7(28)(896)}{140-7\left(\frac{28}{7}\right)^2}$=15.32

$$a = \frac{896}{7} - 15.32)(28)/7 \ = 66.72$$

Y=66.72+15.32(x)

ii. For the year 2005, we consider x=8

Y=66.72+15.32(8)=189.28

Hence, the estimated sale for the year 2005 is of 189.28 coolers.

(b)

i. Mean $= \frac{7 \times 100 + 500}{8} = \text{K}150$

ii. We have the observations

100, 100, 100, 100, 100, 100, 100, 500

Therefore,

Median $= \text{K}100$

iii. Mode $= \text{K}100 =$

(c)

(i) The mode or median, K100, as it gives the value most people get.

(ii) The mean, K150, as it is a higher value and more likely to persuade the prospective employee.

(d) A time series is a set of observations taken at specified times, usually at 'equal intervals'.

SOLUTION THREE

(a) $X \sim N\left(10,000, 2000^2\right)$

We standardize X so that $Z = \dfrac{X - 10,000}{2,000}$

(i) $P\left(X < 11,000\right) = P\left(\dfrac{X - 10,000}{2,000} < \dfrac{11,000 - 10,000}{2,000}\right)$

$= P\left(Z < 0.5\right)$

$= F\left(0.5\right)$

$= 0.6915$

(ii) $P\left(X > 12,000\right) = P\left(\dfrac{X - 10,000}{2,000} > \dfrac{12,000 - 10,000}{2,000}\right)$

$= P\left(Z > 1\right)$

$= 1 - F\left(1\right)$

$= 1 - 0.8413$

$= 0.1587$

(iii) $P\left(7,000 < X < 11,000\right) = P\left(\dfrac{7,000 - 10,000}{2,000} < \dfrac{X - 10,000}{2,000} < \dfrac{11,000 - 10,000}{2,000}\right)$

$= P\left(-1.5 < Z < 0.5\right)$

$= F\left(0.5\right) - F\left(-1.5\right)$

$= F\left(0.5\right) - \left[1 - F\left(1.5\right)\right]$

$= 0.6915 - \left[1 - 0.9332\right]$

$= 0.6915 - 0.0668$

$= 0.6247$

(iv) $E\left(X\right) = np$

$= 200 \times 0.6247$

$= 125$

b)

(i) Lower quartile $= \frac{1}{4}\left(n+1\right)^{th}$ value

$= \frac{1}{4}\left(30+1\right)^{th}$ value

$= 7.75^{th}$ value

So, we pick the eighth term

$\therefore Q_1 = 3.2$

(ii) Upper quartile $= \frac{3}{4}(n+1)^{th}$ value

$= \frac{3}{4}(30+1)^{th}$ value

$= 23.25^{th}$ value

So, we pick the 23rd term

$\therefore Q_3 = 4.0$

(iii) Upper fence $= Q_3 + 1.5(Q_3 - Q_1)$

$= 4.0 + 1.5(4.0 - 3.2)$

$= 5.2$

Lower fence $= Q_1 + 1.5(Q_3 - Q_1)$

$= 3.2 + 1.5(4.0 - 3.2)$

$= 2$

Any value smaller than 2 or bigger than 5.2 is considered to be an outlier. Therefore, 5.5 is an outlier

SOLUTION FOUR

(a)

Class interval	Frequency	Relative frequency	Cumulative frequency	Cumulative relative frequency
3 – 10.2	5	0.2	5	0.2
10.2 – 17.2	8	0.32	13	0.52
17.2 – 24.6	7	0.28	20	0.80
24.6 – 31.8	3	0.12	23	0.92
31.8 – 39	2	0.08	25	1.00

(b)

Class mark (x)	f	xf	x^2f
6.6	5	33	217.8
13.7	8	109.6	1501.52
20.9	7	146.3	3057.67
28.2	3	84.6	2 385.72
35.4	2	70.8	2 506.32
	$\sum f = 25$	$\sum xf = 444.3$	$\sum x^2f = 9\,669.03$

(i)

$$\text{Variance } \sigma^2 = \frac{\sum x^2 f - \frac{(\sum xf)^2}{\sum f}}{\sum f} = \frac{9669.03 - \frac{(444.3)^2}{25}}{25} = \frac{1772.9304}{25} = 70.92$$

(ii) $\sigma = \sqrt{70.917216} = 8.42$

(iii)

Median deviation or mean absolute deviation

$$MAD = \frac{\sum f[x - \overline{x}]}{\sum f}$$

$$\overline{x} = \frac{\sum xf}{\sum f} = \frac{444.3}{25} = 17.772$$

Class mark	f	$f\lceil x - \overline{x}\rceil$
6.6	5	55.86
13.7	8	32.576
20.9	7	21.896
28.2	3	31.284
35.4	2	39.256
		180.872

$$MAD = \frac{180.872}{25} \approx 7.23$$

(iv)

$$CV = \frac{\sigma}{\mu} \times 100 = \frac{8.42}{17.772} \times 100 \approx 47.38\%$$

SOLUTION FIVE

(a)

Quarter	Sales	4 moving Totals	4 Moving Averages (4MA) Trend Values
1	24		
2	8		
		122	
3	30		30
		118	
4	60		31
		130	
5	20		35
		150	
6	20		40
		170	
7	50		45
		190	
8	80		50
		210	
9	40		54
		222	
10	40		57
		244	
11	62		
12	92		

(b) Incorrect $\sum x = n\bar{x} = 50 \times 44 = 2200$

Correct $\sum x =$ Incorrect $\sum x -$ Wrong item $+$ correct item

$= 2200 - 56 + 36$

$= 2180$

Correct $\bar{x} = \frac{Correct \sum x}{n} = \frac{2180}{50} = 43.6$

(c) The median is the most informative measure of central tendency for skewed distributions or distributions with outliers.

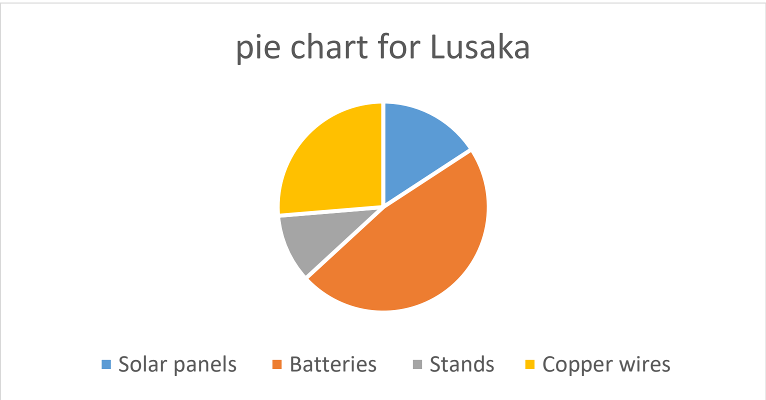
SOLUTION SIX

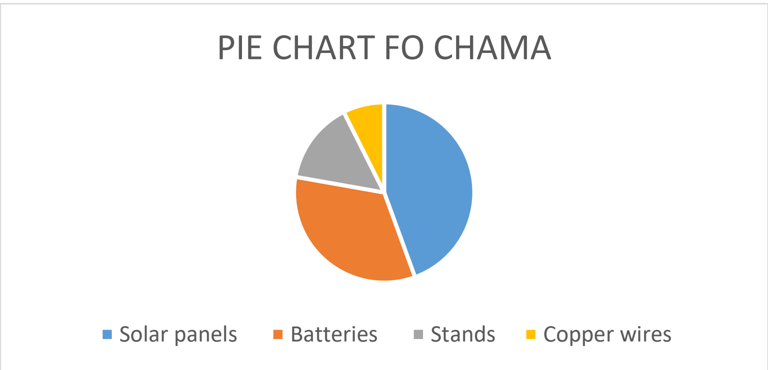
(a) (i) Lusaka: $\frac{\mathbf{90}}{\mathbf{190}} = \mathbf{0.473}$

Chama $\frac{\mathbf{90}}{\mathbf{270}} = \mathbf{0.333}$

(ii)

Material	Lusaka	degrees	Chama	Degrees
Solar panels Batteries Stands Copper wires	K30 K90 K20 K50	56.8 170.5 37.8 94.7	K120 K90 K40 K20	160 120 53.3 26.6
Total	K190		K270	





(b) (i) **expected value:**

Number of movies	Probability of demand
200	0.2
350	0.4
500	0.3
800	0.1

Mean= 200(0.2) + 350(0.4) +500(0.3) + 800(0.1) =410

Standard deviation:

$$E(X^2) = 200^2(0.2) + 350^2(0.4) + 500^2(0.3) + 800^2(0.1)$$
$$8000 + 49000 + 75000 + 64000 = 196000$$
$$V(x) = 196{,}000 - (410)^2 = 27900$$

(ii) Standard deviation is $\sqrt{27900} = \mathbf{167}$

END OF SUGGESTED SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA CERTIFICATE IN ACCOUNTANCY

CA 1.3: BUSINESS ECONOMICS

TUESDAY 10 JUNE 2025

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: There are FIVE (5) questions in this section. Attempt QUESTION TWO (2) and any other THREE (3) questions from the remaining FOUR (4) 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 function is money performing when it is used as a common measure to compare the value of goods?

A. Medium of exchange.

B. Unit of account.

C. Store of value.

D. Standard of deferred payment.

(2 marks)

1.2 Which of the following is the best example of a public good?

A. Health Services.

B. A toll Road.

C. Electricity supply.

D. National Defense.

(2 marks)

1.3 The process of banks creating money through lending is best explained by:

A. The money multiplier effect.

B. Open market operations.

C. Government fiscal policy.

D. The reserve requirement mechanism.

(2 marks)

1.4 When inflation exceeds the growth of nominal income, the result is:

A. Rising real income.

B. Constant real income.

C. Declining real income.

D. Rising purchasing power. (2 marks)

1.5 If the MPC is 0.75 and government spending increases by K200 million, the resulting equilibrium output change will be:

A. K150 million.

B. K800 million.

C. K200 million.

D. K1,000 million.

(2 marks)

1.6 Absolute advantage refers to:

A. A nation's ability to produce a product with fewer resources than another.

B. The production of goods at the lowest opportunity cost than other nations.

C. The use of trade policies to restrict imports from other nations or countries.

D. The ability of a country to produce all goods efficiently.

(2 marks)

1.7 National income accounting primarily focuses on measuring:

A. Employment levels in an economy in a particular period.

B. The value of all final goods and services produced in a year.

C. The distribution of wealth across different income groups.

D. The impact of international trade on domestic income.

(2 marks)

1.8 Which of the following is a characteristic of a command economy?

A. Market forces determine production and allocation.

B. Private ownership of resources dominates.

C. Government makes all significant economic decisions.

D. Prices are set by market forces of supply and demand.

(2 marks)

1.9 Which of the following describes typical Open Market Operations?

A. Changes in the tax rate.

B. Government borrowing from international organizations.

C. Central banks buying or selling government securities.

D. Adjusting the discount rate.

(2 marks)

1.10 The infant industry argument for trade protection suggests that:

A. Newly established industries require time to become globally competitive.

B. Trade barriers will reduce foreign consumer demand and income.

C. Domestic firms will innovate faster with fewer restrictions and competition.

D. Government intervention is unnecessary for industrial and economic growth.

(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

Few goods are produced by single producers, and fewer still are free from competition of close substitutes. Even public utilities are imperfect monopolies in most of their markets. Electric companies, like Zesco, approach a perfect monopoly in the residential lighting market but face strong competition from gas and oil suppliers in the heating market. In all industrial and commercial power markets, electricity utilities face competition from gas and oil powered private generators. Even though perfect monopoly rarely exists, it is still worthy of careful examination. Many of the economic relations found under monopoly can be used to estimate optimal firm behavior in the less precise, but more prevalent, partly competitive and partly monopolistic market structures that dominate the real world.

Kamwala Innovations Limited (KI) is a major supplier of reverse osmosis and ultrafiltration equipment, which helps industrial and commercial customers achieve improved production processes and a cleaner work environment. The company has recently introduced a new line of ceramic filters that enjoy patent protection. Relevant cost and revenue relations for this product are as follows:

$P = 940 - 0.002Q$

$MR = \Delta TR/\Delta Q = 940 - 0.004Q$

$TC = 250{,}000 + 40Q + 0.001Q^2$

$MC = \Delta TC/\Delta Q = 40 + 0.02Q$

where TR is total revenue, Q is output, MR is marginal revenue, TC is total cost, including a risk-adjusted normal rate of return on investment, and MC is marginal cost. All amounts are in kwacha.

Required:

(a) Outline any three (3) characteristics of monopoly market structure. (9 marks)

(b) Determine the total profit function for the company. (4 marks)

(c) Determine the profit maximising price and quantity for the company. (4 marks)

(d) Calculate the maximum profit for the company. (3 marks)

[Total 20 Marks]

QUESTION THREE

When trade occurs between Zambia and other nations, many types of financial transactions are recorded in a summary called the Balance of Payments. The balance of payments is a bookkeeping record of all the international transactions between a country and other countries during a given period of time. This summary records the value of a nation's spending inflows and outflows made by individuals, firms and governments.

Zambia's main exports include copper, sugar, tobacco, gemstones and cotton. Zambia is a net importer of fuel and machinery. The major source countries for imports are South Africa, China, India, Singapore, and United Arab Emirates.

"Zambia recorded a current account surplus of $186 million in the third quarter of 2024. The current account in Zambia averaged $35.85 million from 1998 until 2024, reaching an all-time high of $1543.90 million in the second quarter of 2021 and a record low of -$564.00 million in the third quarter of 2008" (www.tradingeconomics.com).

Required:

(a) Outline the three (3) components of the balance of payment. (6 marks)

(b) As a student of Business Economics discuss the following statements:

   (i) "Because each nation's balance of payments equals zero, it follows that there is actually no significance to balance of payment deficit or surplus." (3 marks)

   (ii) "Free foreign trade costs domestic jobs." (3 marks)

(c) In reference to international trade, define the concept 'protectionism." (2 marks)

(d) Outline any three (3) barriers to trade describing how they work. (6 marks)

[Total: 20 Marks]

QUESTION FOUR

As countries develop and incomes rise, one of the first luxuries people tend to acquire is a high-end smartphone. The income elasticity of demand for smartphones has been estimated at around 1.5, indicating that they are a normal good with a strong response to income changes. Among emerging economies, India has seen a particularly sharp rise in smartphone demand due to increasing disposable income, rapid urbanization, and expanding internet access. In 2005, smartphone penetration in India was negligible, as most people relied on basic feature phones. However, by 2021, India had over 750 million smartphone users, making it the second-largest smartphone market in the world after China. The affordability of mid-range smartphones, coupled with financing options and aggressive marketing strategies, has accelerated this growth. For instance, in 2020, despite the economic downturn caused by the COVID-19 pandemic, India's smartphone market rebounded strongly, growing by 23% in the second half of the year. The price elasticity of demand for smartphones varies depending on factors such as competition, availability of substitutes, brand perception, and technological advancements. The introduction of budget-friendly smartphones has made demand more elastic, while premium brands like Apple and Samsung maintain a degree of inelasticity due to brand loyalty and differentiation. Additionally, improvements in mobile internet infrastructure, such as the rollout of 5G networks, have further influenced consumer demand by making high-end devices more attractive.

Required:

(a) Explain whether the price elasticity of demand for smart phones will increase, decrease, or remain the same when each of the following events occurs?

   (i) Competitor smart phone manufacturers, enter the Indian market. (2 marks)

(ii) Foreign smart phone brands are banned from the Indian market. (2 marks)

(iii) Advertising campaigns convince Indian consumers that premium smartphones improve productivity and status (2 marks)

(b) Assume that the smart phone industry in India operates in an oligopoly competitive structure.

(i) Outline any two (2) pricing strategies an oligopolist might adopt. (4 marks)

(ii) Illustrate with the use of a diagram, the kinked demand curve of oligopoly. (10 marks)

[Total: 20 Marks]

QUESTION FIVE

Household consumption is strongly influenced by disposable income, as explained by the consumption function. The consumption function indicates the relationship between aggregate consumption and national income. The multiplier effect plays a crucial role in determining how an initial increase in investment leads to further increases in consumption and overall economic growth. A larger marginal propensity to consume (MPC) leads to a larger multiplier effect. In this book, Keynes introduces the consumption function to illustrate the relationship between aggregate consumption and national income. He also explores how the MPC influences the multiplier effect, demonstrating that a higher MPC leads to a larger multiplier, thereby amplifying the impact of an initial increase in investment on overall economic activity.
Source: Introduction to Multiplier Model Macroeconomics

Required:

(a) Consider the following consumption function, where Government spending (G) is 900, investment (I) is 1,200, and taxes (T) are 200:
$C=500+0.75(Y-T)$

(i) Determine the Aggregate Expenditure function. (3 marks)

(ii) Determine the equilibrium level of output. (3 marks)

(iii) If Government spending increases by 300, calculate the new equilibrium output. (2 marks)

(iv) Explain the concept of the investment multiplier. (4 marks)

(b) Outline four (4) the key determinants of consumption. (8 marks)

[Total: 20 Marks]

QUESTION SIX

A market is said to be in equilibrium when none of its members (buyers and sellers) feels compelled to change their behaviour. However, equilibrium is dynamic because the factors that influence members are constantly changing. When factors such as, income, tastes, production technology, factor prices and so on, change, they lead to disequilibrium. The state of disequilibrium is temporal, because buyers and sellers will make efforts to restore the state of equilibrium. Eventually, a new equilibrium position will be achieved. This process is ongoing, as long as the determinants of supply and demand keep changing. Suppose a constant quantity of fish is supplied, the market price must be such that supply is equal to demand.

Required:

(a) Define the terms demand and supply. (4 marks)

(b) With the aid of diagrams, illustrate how any three (3) factors mentioned in the scenario above may cause a change in the equilibrium price and quantity traded for Fish. (12 marks)

(c) Describe the two (2) states of disequilibrium (4 marks)

[Total: 20 Marks]

END OF PAPER

CA 1.3 BUSINESS ECONOMICS - SUGGESTED SOLUTIONS

SOLUTION ONE

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

SOLUTION TWO

(a) Characteristics of monopoly are:

- A single seller. A single firm produces all industry output. The monopoly is the industry.
- Unique product. Monopoly output is perceived by customers to be distinctive and preferable to its imperfect substitutes.
- Blockaded entry and exit. Firms are heavily restricted from entering or leaving the industry.
- Imperfect dissemination of information. Cost, price, and product quality information is withheld from uninformed buyers

(b) Total profit function is found by subtracting TC from TR.

TR = Price x Quantity

Hence Profit = TR – TC = (940-0.002Q) Q – (250,000 +40Q + 0.001Q^2)

= 940Q -0.002Q^2 – 250,000 – 40Q – 0.01Q^2

= -0.003Q^2 +900Q – 250,000

(c) Profits are maximised at point where MR = MC.

Equating these functions 940 - 0.004Q = 40Q + 0.002Q

= 0.006Q = 900; Q = 150,000 units

At Q =150,000, P = 940 -0.002(150,000) = 640

(d) To find the maximum profit, we use the profit function and substitute Q = 15,000. Thus, maximum profit = -0.03$(150,000)^2$ + 900(150,000) – 250,000 = K67,250,000

SOLUTION THREE

(a) Components of balance of payments are:

- Current account: under this account are the visible and invisible trade. Visible trade is trade in goods also called merchandise trade. Invisible trade is trade in services. The current account also covers net interest, profits and dividends, and net transfers.
- Capital account: The record of a country's international transactions involving purchases or sales of financial and real assets
- Official reserves account: This is also called the balancing item because it can increase or decrease depending on whether the sum of the balance on current account plus the balance on capital account is negative or positive. Official reserves are foreign currencies that every central bank must keep. These reserves can be increased or reduced as may be appropriate.

(b) Statements:

(i) Although each nation's balance of payments equals zero, its current and capital account balances do not equal zero. For example, a current account deficit means a nation imported more than it exported. On the other hand, this nation's capital account must have a surplus to offset the current account deficit. This means that foreigners are buying more domestic capital (capital inflow) than domestic citizens are buying foreign capital (capital outflow). Thus, net ownership of domestic capital stock is in favour of foreigners.

(ii) Although domestic jobs may be lost, new ones are created by international trade. Stated differently, the economy as a whole gains when nations specialise and trade according to the law of comparative advantage, but imports will cost jobs in some specific industries.

(c) Protectionism is the government's use of barriers to trade to reduce imports and to protect domestic producers from foreign competition

(d) The barriers to trade are:

- Embargoes: An embargo is a law that bars trade with another country. Embargoes prohibit the import or export of particular goods
- Tariffs: This is a tax on imports. Tariffs discourage imports by making them more expensive
- Quotas: This is a limit on the quantity of a good that may be imported in a given time period**.**
- Exchange Controls: These are restrictions regarding access to foreign currencies used to import goods.
- Voluntary Export Restraints (VERs): This is a voluntary agreement between two countries where they importing country asks the exporting country to voluntary reduce its exports if it threatens the domestic industry.

SOLUTION FOUR

(a) **Price Elasticity of Demand for Smartphones**

(i) Competitor smartphone manufacturers enter the market: The price elasticity of demand for smartphones increases because more brands and models create greater competition, giving consumers more alternatives. With more choices, consumers become more sensitive to price changes.

(ii) Foreign smartphone brands are banned from the Indian market: The price elasticity of demand decreases as consumers have fewer substitutes. If brands like Apple and Samsung are restricted, domestic manufacturers gain market power, making demand less sensitive to price changes.

(iii) Advertising campaigns convince Indian consumers that premium smartphones improve productivity and status: The price elasticity of demand decreases because brand loyalty and perceived necessity increase. If consumers strongly believe that premium smartphones are essential for social status or productivity, they will be less responsive to price changes.

(b) Oligopoly

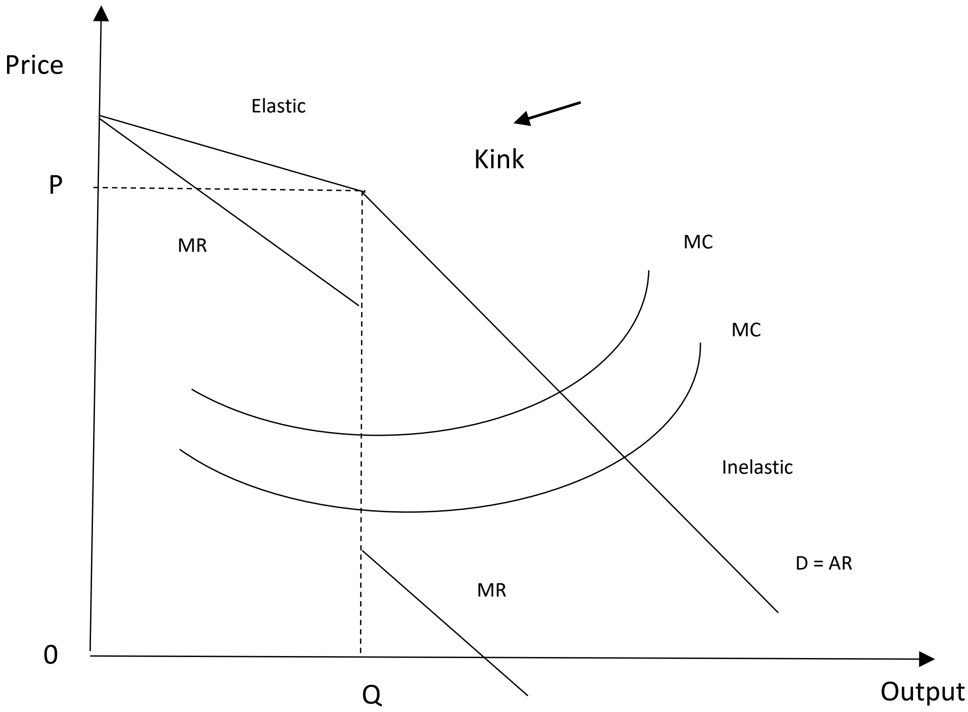
(i) Pricing strategies

- (i) Collusive oligopoly; this is where large firms agree to a common policy on pricing and market sharing.
- (ii) Kinked demand curve; this is where individual firms make their own decisions regarding pricing. The effect of this will depend on how rivals react.
- (iii) Become a price follower and respond to the actions of a price leader.
- (iv) Do nothing; the firm may feel it would be disadvantageous to change its price, again based on the kinked demand curve.

(ii) The Kinked Demand curve

The kinked demand curve helps to explain how an oligopolist might have to accept price stability in the market. Assume that, on one hand, the oligopolist decides to raise his price above P, competitors are likely to keep their prices lower so that more customers may buy from them instead. As a result of this, the firm will eventually restore the original price. Demand would be elastic at increased prices.

If, on the other hand, the oligopolist were to reduce his price below P, competitors would follow suit. Total market demand might rise, but the increase in demand for the individual firm would be quite low. Demand is therefore less elastic (inelastic) at lower prices, hence a ‘kink’ in the demand curve.


Price
Elastic
Kink
P
MR
MC
MC
Inelastic
D = AR
MR
0
Q
Output

SOLUTION FIVE

(a) (i). Determining the AE function:

Aggregate Expenditure (AE) is given by:
AE = C + I + G,
AE=[500+0.75(Y−200)] +1,200+900]
AE =500+ 0.75Y-150 + 2100
AE = 2450 +0.75Y

Final Aggregate Expenditure Function: AE = 2450 +0.75Y

(ii) Determine the Equilibrium Level of Output

At equilibrium:

Y=AE

Y=2,450+0.75Y

Solve for Y:

Y−0.75Y=2,450

0.25Y=2,450

∴ Y=$\frac{2450}{0.25} = 9800$

Equilibrium Output: 9,800

(iii) If government spending increases by 300, calculate the new equilibrium output

New G = 900 + 300 = 1,200

New AE function:

AE=2,450+0.75Y

At equilibrium

Y = 2,750+0.75Y

Y-0.75Y = 2750

0.25Y = 2750

∴ Y=$\frac{2750}{o.25} = 11{,}000$

New Equilibrium output = 11,000

(iv). Explaining the Concept of the Investment Multiplier

- The investment multiplier measures how much output (GDP) changes in response to an initial change in investment or government spending.

  Multiplier $= \frac{1}{1-mpc} = \frac{1}{1-0.75} = 4$

  This means that for every K1 increase in investment or government spending, GDP increases by K4.

(b) Outlining the key determinants of consumption

(i) Disposable Income – Higher after-tax income increases consumption, while lower income reduces it.
(ii) Wealth Levels – Households with more assets (e.g., property, stocks) tend to spend more.
(iii) Interest Rates – Higher interest rates discourage borrowing and spending, while lower rates encourage consumption.
(iv) Consumer Confidence – If people expect economic stability and job security, they spend more; uncertainty reduces spending.
(v) Inflation – Rising prices may encourage spending before prices increase further, while deflation leads to delayed purchases.
(vi) Availability of Credit – Easier access to loans and credit increases consumption.
(vii) Government Policies – Tax cuts increase disposable income, while tax hikes reduce it.
(viii) Cultural and Social Factors – Consumption habits differ based on lifestyle, advertising, and peer influence.

SOLUTION SIX

(a) Definitions of Demand and Supply

Demand: The quantity of a good or service that consumers are willing and able to buy at different price levels over a given period, ceteris paribus.

Supply: The quantity of a good or service that producers are willing and able to offer for sale at different price levels over a given period, ceteris paribus.

(b)

(i)

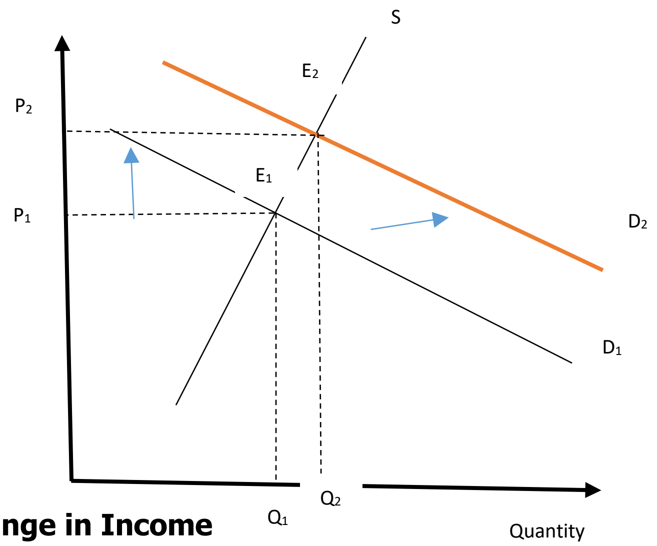
Change in Consumer Income: Assuming fish is a normal good, if consumer income increases, demand for fish will rise, shifting the demand curve rightward. This leads to a higher equilibrium price and quantity. Conversely, if income decreases, demand shifts leftward, leading to a lower equilibrium price and quantity.

(ii)

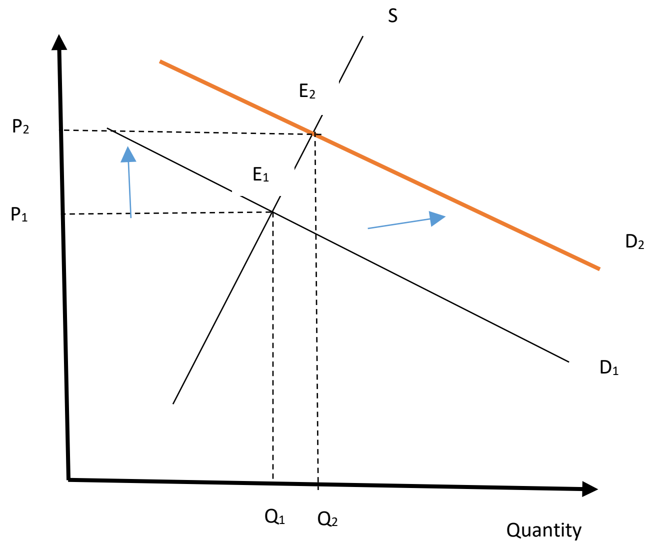
Change in Tastes and Preferences: If people develop a stronger preference for fish (e.g., due to health benefits), demand increases, shifting the demand curve rightward. This raises the equilibrium price and quantity. If preferences shift away from fish (e.g., due to health concerns or availability of substitutes), demand decreases, shifting the demand curve leftward, and reducing the equilibrium price and quantity.

(iii)

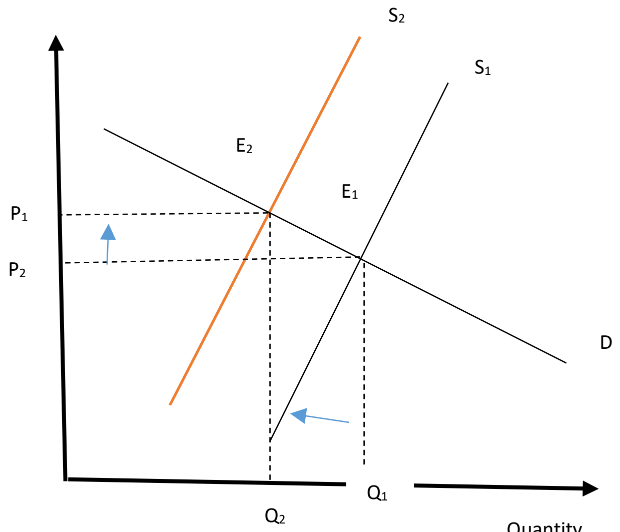
Change in Factor Prices (e.g., Cost of Inputs in Fishing): If the cost of fishing equipment, fuel, or labor rises, it becomes more expensive to supply fish. This shifts the supply curve leftward, increasing the equilibrium price but reducing the equilibrium quantity. If costs decrease due to advancements in fishing technology, supply shifts rightward, leading to a lower equilibrium price and higher quantity.



Change in Income



Change in tastes and Preferences



Change in Factor prices

i.

(i) Excess Demand (Shortage): Occurs when the quantity demanded exceeds the quantity supplied at a given price. It leads to upward pressure on price, as consumers compete for the available supply.

(ii) Excess Supply (Surplus): Occurs when the quantity supplied exceeds the quantity demanded at a given price. It leads to downward pressure on price, as sellers reduce prices to attract buyers.

END OF SUGGESTED SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CERTIFICATE IN ACCOUNTANCY

CA 1.4: COMMERCIAL AND CORPORATE LAW

FRIDAY 13 JUNE 2025

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: There are FIVE (5) questions in this section. Attempt question TWO (2) and any other THREE (3) questions from the remaining FOUR (4) 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 The principle by which judges are guided by decisions of other judges in similar previous cases is known as:

A. A precedent.

B. Obiter dicta.

C. Judicial decisions.

D. The mischief rule.

(2 marks)

1.2 Which of the following contracts is void because it is contrary to public policy?

A. Bwalya conspiring with Daka to start a farming business.

B. Mary agreeing with her employer to increase her pay.

C. Jane and Joy, both students of Nyayo Nursing School, renting a room from hostel management for the purpose of prostitution.

D. Agreement by a prison warder to buy food for the prisoner upon being given a tip by the prisoner. (2 marks)

1.3 ………………………………………. is not an example of a tort?

A. Trespass to land.

B. Civil defamation.

C. Trespass to a person.

D. Criminal defamation.

(2 marks)

1.4 Bad Boy drove his uncle's car to Gerald and gave Gerald the impression that he had the authority to sell his uncle's car. This type of agency may be describe as……………

A. Agency of necessity.

B. Agency by ratification.

C. Agency by estoppel.

D. Express agency.

(2 marks)

1.5 Which one of the following is a feature of the Partnership Agreement?

A. Estoppel.

B. Common Law.

C. Retirement from the firm.

D. Just and Equitable.

(2 marks)

1.6 In a partnership business, a dormant partner……………………………………

A. Does not take part in a profit sharing of the business.

B. Does not take part in the management of the business.

C. Does not contribute any capital into the business.

D. Is also known as a nominal partner.

(2 marks)

1.7 Vitiating factors have been known to be factors that vitiate the validity of a contract. Which one of the following is not a vitiating factor?

A. Undue Influence.

B. Res Ipsa Loquitur.

C. Duress.

D. Mistake.

(2 marks)

1.8 Which statement denotes the mischief rule?

A. To suppress the mischief and advance the remedy.

B. To read in words and avoid the absurdity.

C. To apply the meaning of accompanying words.

D. To avoid the grammatical sense of words.

(2 marks)

1.9 What amounts to redundancy?

A. Wrongful dismissal.

B. unfair dismissal.

C. Summary dismissal.

D. Termination of an employee's contract based on lack of financial capacity to pay.

(2 marks)

1.10 Misconduct which warrants summary dismissal may involve the following except.

A. Theft at work.

B. Assault at work.

C. Insolence or impolite at work.

D. Negligence at work

(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 out of the remaining FOUR (4).

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

(a) Lila and her friends were visiting Zambia for the first time. They toured most provinces and their last tour was at Kwakuwahi Lodge along the banks of the Kabompo River. Lila was amused by the scene of the beautiful flowing waters of the Kabompo River. Lila challenged her colleagues to swim across the river, promising a reward of K5,000 to anyone who would swim across the river, which she placed on the table. Phil is not with Lila's group but is sitting at the table next to Lila and her friends. Phil hears the promise and thinks its attractive. Without saying anything to Lila, he quickly takes off his shirt and jumps into the river; whilst in the river he shouts to Lila saying, "Look, I am the best swimmer around here, everyone knows me". Lila is thrilled by this. He thereafter, approaches Lila for the K5,000 reward. However, she thinks to herself that she never meant to extend the offer to other people outside her cycle. Lila now seeks your legal opinion on the matter as to what happens, since Phil is claiming K5,000.

Required:

Explain whether Phil will succeed with his K5,000 claim from Lila. (10 marks)

(b) Explain any four (4) types of invitations to treat. (8 marks)

(c) Define the word "insolvency as used in company law". (2 marks)

[Total: 20 Marks]

<u>QUESTION THREE</u>

(a) Although the burden of proof in negligence normally lies on the Plaintiff, there is a principle known as *res ipsa loquitur* meaning "the thing speaks for itself". Discuss this principle with the aid of examples. (10 marks)

(b) Discuss the duties of a company secretary in accordance with the Companies Act. (10 marks)

[Total: 20 Marks]

QUESTION FOUR

African Trading Limited has since fallen on hard times and its Creditors are sadly considering winding up the Company through the Courts in order to be able to meet certain obligations. A Company called *Synergy Corporate Advisory Limited* has since been appointed as Independent Consultants on this matter.

The Company is also worried about the contracts it currently has running, but has been unable to effectively perform due to financial constraints, which in some instances has resulted into some of the contracts being abruptly discharged due to circumstances beyond their control.

As if the above wasn't enough, the Company has received over 20 claims by third Parties who have sued the Company for the negligent actions of its Employees, arguing that they are vicariously liable.

Distressed and distraught, the Directors of *African Trading Limited* have now stormed your Office for assistance.

Required:

(a) Discuss with the Directors in your office the procedure for winding-up a company by the Court. (10 marks)

(b) List for the Directors the four (4) ways in which a contract they entered can be discharged. (4 marks)

(c) Explain to the Directors the concept of vicarious liability as per the 20 claims above. (6 marks)

[Total: 20 Marks]

QUESTION FIVE

Kalambo was engaged on a full time contract for a period of three (3) years as a Marketing Officer at Networth Investments Limited. As a patriot, he used to get in constant debates and arguments with his overall manager over trending topics in the political sphere. At one time, his overall manager told him that he is just a baby who doesn't understand politics in the real world. Afterwards, the relationship turned sour and he was dismissed without sufficient notice as required by the Employment Laws of Zambia.

Required:

(a) Explain any two (2) tests for the establishment of employment relationships. (5 marks)

(b) Describe how an employee acts as an agent of the employer. (5 marks)

(c) Antony sold some goods to Bimbe to be delivered to Bimbe at his place. One of the conditions of the contract of sale was that the buyer, Bimbe, must pay the price before the goods are delivered to him. During the transportation, the goods were destroyed by an accident. Advise Antony and Bimbe on who has to bear the loss under their contract of sale. (5 marks)

(d) List the three (3) main constituent elements of a partnership according to the Partnership Act of 1890. (5 marks)

[Total: 20 Marks]

QUESTION SIX

(a) Distinguish by-laws from statutory Instruments. (4 marks)

(b) Explain the Jurisdiction of the Supreme Court in Zambia. (6 marks)

(c) Distinguish a fixed charge from a floating charge. (6 marks)

(d) Explain the duties of company secretary before the meeting. (4 marks)

[Total: 20 Marks]

END OF PAPER

CA 1.4 COMMERCIAL AND CORPORATE LAW – SUGGESTED SOLUTIONS

SOLUTION ONE

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

SOLUTION TWO

(a) This question invites candidates to examine the way in which contractual relations can come into existence. It requires a treatment of the rules relating to offer and acceptance and the possibility of revoking offers in relation to unilateral contracts. The answer will set out the general law applicable before applying it to the circumstances of the problem scenario.

Unilateral contract

A unilateral contract arises where one party promises something in return for some action on the part of another party. Reward cases are typical examples of such cases. There is no compulsion placed on the party undertaking the action but if they carry out the task requested they will receive the reward offered. *Re Casey's Patents v. Casey (1892)*

Offer

An offer is an undertaking, capable of acceptance to be bound on particular terms. The person who makes the offer is the offeror; the person who receives the offer is the offeree. An offer sets out the terms upon which the offeror is willing to enter into contractual relations with the offeree. An offer may, through acceptance by the offeree, result in a legally enforceable contract.

Acceptance of offers

Acceptance is necessary for the formation of a contract. Once the offeree has assented to the terms offered, a contract comes into effect. Both parties are bound: the offeror can no longer withdraw their offer, nor can the offeree withdraw their acceptance. Acceptance does not have to be in the form of express words, as it can be implied from conduct. Although a person cannot accept an offer they do not know about, their motive for accepting it is not important as long as they know about the offer.

Applying the foregoing to the facts of the scenario, it would appear that Lila made a unilateral offer to the world at large. Although Phil was not with Lila's group, the offer was made to 'anyone' and therefore open to Phil to accept it by performing the required act. He did not have to inform Lila that he was accepting the offer; he simply had to perform the act. It would appear that Robert could claim the K2, 000,000 from Mike.

(b)

An invitation to treat is an invitation to another person to make an offer and it cannot be accepted. The following are the types of invitation to treat:

(i) **Mere supply of information**. **In Harvey v Facey (1893) P telegraphed D:** 'Will you sell us Bumper Hall Pen? Telegraph lowest cash price.' D telegraphed the reply. 'Lowest price for Bumper Hall Pen £900 and P then telegraphed. 'We agree to buy Bumper Hall Pen for £900. D then decided that he did not wish to sell Bumper Hall Pen to P for £900, and P claimed that a contract had been made, the second telegraph being an offer. The court held that there was no contract, the second telegram being merely an indication of what D would sell it for, if and when, he decided to sell. It was supplying of information in response to a question.

Hence, the mere supply of information should not be taken as an offer but an invitation to treat.

(ii) **The exhibition of goods for sale in a shop.** For example **Fisher v Bell (1961),** also **Pharmaceutical Society of Great Britain v Boots Chemists (1953)** whereby statute required certain drugs had to be sold in the presence of a qualified pharmacist. Boots operated a self-service shop, with a qualified pharmacist present at the check-out, but not at the shelves on which the drugs were displayed. The precise location of the place of sale was therefore, relevant to determine whether or not an offence had been committed. It was held that the display was an invitation to treat. The customer's tender of the drugs was the offer and the taking of the money by the pharmacist was the acceptance. The sale therefore, took place at the check-out and Boots therefore did not commit an offence.

(iii) **General advertising of goods.** Thus a newspaper advertisement that goods are for sale is not an offer. In **Grainger v Gough (1996),** it was held that the circulation of a price list by a wine merchant was only an invitation to treat.

(iv) **An invitation for Tenders.** A tender is an estimate submitted in response to a prior request. An invitation for tenders **does not generally amount to an offer to employ the person quoting the lowest price.** In **Blackpool and Fylde Aero Club v Blackpool Council (1990):** the council, who manage Blackpool Airport, intended to grant a concession to operate pleasure flights from the Airport. It sent invitations to tender to P and 6 parties, all of whom were known to the council. The invitation stated that tenders received after the last date would not be considered. P posted their tender in good time in the town hall letter-box, but this was not opened when it was supposed to be, consequently P's tender arrived late and was excluded from consideration. P sued in contract and negligence. P succeeded, the Court of Appeal holding that it was possible to have exceptions to the rule that invitation to tender was not contractual offers.

(vi) **An Auctioneer's request for bids**. An advertisement stating that an auction is to be held, or request for bids is an invitation to treat and not an offer to sell to the highest bidder. The bid is the offer and the fall of the auctioneer's hammer is the acceptance. Until this happens the bidder may retract his bid. **A statement that an auction sale will be held is not actionable if a person travels to the place of sale only to find the auction has been cancelled**. **Harrison v. Nickerson (1893).**

(vii) **A Company Prospectus.** A prospectus or advertisement inviting the public to subscribe for shares or debentures is an invitation to treat, even if (as is the custom) it's described as 'an offer for sale'.

(c) Insolvency is a type of financial distress, meaning a financial state in which a person or entity is no longer able to pay the bills or other obligations. A person is insolvent when the total liabilities exceed the total assets. In this way, a company ceases being a going concern.

SOLUTION THREE

(a) The principle applies whether it is so unlikely that the court could find without further evidence that it was so caused. The maxim applies when:

(1) The ‘ thing ‘ is under the control of the defendant

(2) The defendant has knowledge denied to the plaintiff; and

(3) The damage is such that it would not normally have happened if proper care had been shown by the defendant. If there requirements are fulfilled there is prima facie evidence of a breach of duty. The burden of proof is then shifted to the defendant who must prove that he did show reasonable care. The maxim does not apply when facts are sufficiently known because it depends on an absence of plaintiff victory. It merely shifts the burden of proof to the defendant.

In **Byrne v Boadle** a barrel of flour fell from D’s ware house injuring P, a passer by. No explanation could be given by D for the incident. The court therefore placed the burden of proof on D who had show that he had not broken his a breach of duty of care.

Similarly in **Mahon v Osborne**, a swab was left in a patient’s body after an operation. Clearly the patient could not prove a breach of duty, since he was under an anesthetic. However the presence of the swab raised the inference of a breach of duty (res ipsa loquittur)

(b) A company secretary is responsible for

(a) providing the directors, collectively and individually, with guidance as to their duties, responsibilities and powers;

(b) informing the board of directors on

(i) legislation relevant to or affecting the meetings of members and the board;

(ii) the reports relating to the operations of the company; and

(iii) submission of documents to relevant authorities, as required by statute, as well as the implications of failure to comply with such requirement;

(c) ensuring that minutes of the members’ meetings and of the meetings of the board of directors are properly recorded and registers are properly maintained;

(d) ensuring that the company maintains and updates information on the beneficial ownership of all the shares of the company and their associated voting rights;

(e) ensuring that the company is in compliance with this Act in relation to lodging of documents with the Registrar; and

(f) bringing to the attention of the board of directors any failure on the part of the company or a director to comply with the articles or this Act.

SOLUTION FOUR

(a)

A compulsory winding up or winding up by the court, is a winding up in which the directors of the company do not feel able to make a statutory declaration that the company will be able to pay its debts within approximately twelve months. It also occurs where such a statement has been made but the company finds that it is unable to pay its debts within the stipulated time. If satisfied, the Court makes an order to wind up the company.

(1) It must be noted that the grounds for winding up a company by the court are enshrined under section 57 of the Act as follows:

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

(b) the company is unable to pay its debts;

(c) 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;

(d) the number of members is reduced below two;

(e) the company was formed for an unlawful purpose;

(f) the incorporation of the company was obtained fraudulently; or

(g) in the opinion of the Court, it is just and equitable that the company should be wound-up.

(2) The Court may order the winding-up of a company on the petition of the Registrar or the Official Receiver on the grounds specified in subsection (1) (b), (d), (e) or (f) or on the ground that the company has persistently failed to comply with any of the provisions of this Act.

(3) For purposes of this section, a company is unable to pay its debts if—

(i) there is due, from the company to any creditor, including a creditor by assignment, a prescribed fee, and—

(ii) the creditor has, more than thirty days previously, served on the company a written demand requiring the company to pay the amount due; and

(iii) the company has failed to pay the sum or to secure or compound it to the reasonable satisfaction of the creditor;

(iv) execution or other process issued on a judgment, decree or order of any Court in favour of a creditor of the company is returned unsatisfied in whole or in part; or

(v) the company is unable to pay its debts as they fall due.

(4) The Court shall, in determining whether a company is unable to pay its debts, take into account the contingent and prospective liabilities of the company.

(b)

(1) Agreement
(2) performance
(3) frustration
(4) breach

(c)

The theory of Vicarious liability occurs where an employer is liable for damage caused to another by his employee while the employee was carrying out his work while he was in the course of employment. The principle applies whether the injury was to an outsider or to a fellow employee. The employer is liable even though he was not in any way at fault. This rule, which seems at first sight to be unfair to the employer, is based upon law and policy.

The aim of this theory is to provide the injured person with a defendant who is likely to be able to pay any damages which the court may award. An employer and the business generally profit from their employees' work. It is not unreasonable that the employer must compensate those who are injured by employees. The employer will normally insure against the risk of liability and the cost of that insurance is factored into the price at which the goods or services of the business are sold. Thus, in the end the injured person is compensated by those members of the public who buy the goods or services. An employee who actually caused the injury is always liable personally along with the employer. However, the prime defendant is the employer, because he has either insurance or other funds which the employee probably does not have.

SOLUTION FIVE

(a) **The control test** is a traditional method used to determine whether someone qualifies as an employee or an independent contractor in an employment relationship. It focuses on the **degree of control** the engager (often referred to as the "employer") has over the individual performing the work. Here's how it works: **Factors considered:**

(i) **Right to control the work:** Does the employer have the right to dictate what work is done, how it's done, when and where it's done, and the equipment used?
(ii) **Economic dependence:** Does the employee rely primarily on the engager for income and have limited ability to work for others?

The ruling in the case of **Mersey Docks & Harbour Board v Coggins & Griffiths (1947 AC 1)** established a key principle in determining vicarious liability for employee negligence. The court applied the **control test**, focusing on **who controlled the driver's method of work** during the specific task. While Coggins & Griffiths controlled the overall purpose of the work (loading/unloading), they **didn't control how the driver operated the crane**.

The integration test assesses how integrated an individual is within the organization they work for**. It asks** whether their work is an essential part of the organization's core business **or simply an outsourced service.** The **integration test focuses on the overall relationship and economic dependence**, while the **control test focuses on the specific level of control over the work itself**. They offer complementary perspectives in assessing employment status. In the landmark case of **Cassidy v Ministry of Health (1951)**, the "integration test" played a crucial role in determining **vicarious liability** and ultimately influencing the concept of employer-employee relationships. While traditionally, the "control test" held weight in such cases, **Cassidy v Ministry of Health**

(b) Agency is a relationship that exists between the employer and the employee, where the agent undertakes to perform actions for his principal. In law, he who acts through an agent is himself acting. In the same way, an employee acts an agent of the principal as he or she performs acts on behalf of his or her principal, the employer thereby biding the principal.

(c) Section 1 (1) of the Sale of Goods Act provides that a contract of sale of goods is a contract whereby the seller transfers or agrees to transfer the property in the goods to the buyer for a money consideration called the price. It quite obviously includes two distinct transactions: a sale and an agreement to sell. Where ownership (called 'property') is transferred immediately from the seller to the buyer, the contract is called a 'sale'. The subject matter of a contract of sale is goods. Goods are defined in Section 62 as including: "*all chattels personal other than things in action and "money … the term includes emblements, industrial growing crops and things attached to or forming part of the land which are agreed to be severed under the contract of sale.*

Section 20 of the Sale of Goods Act 1893 declares that "risk prima facie passes with property". The term risk is used to refer to the perishing or loss or incidental damage, injury or deterioration in the state or quality of the goods resulting in the partial or total loss of the goods. It is critical to determine at what time risk passes from the seller to the buyer because of inter alia the financial consequence of loss or damage. Under the common law, the general rule relating to the passing of risk is tied to the question of passing of property. It states that whichever party has the general property in the goods sold under a contract of sale, at any given moment, bears the risk too. The Sale of Goods Act captures this common law rule in Section 20 which states as follows: *"unless otherwise agreed, the goods remain at the seller's risk until the property therein is transferred to the buyer, but when the property therein is transferred to the buyer, the goods are at the buyer's risk whether delivery has delayed through the fault of either buyer or seller the goods are at the risk of the party in fault as regards any loss which might not have occurred but for such fault."* Risk and possession do not necessarily go together. Risk can pass to the buyer or remain with the seller, regardless of who has the possession or control over the goods. The risk passes to the buyer with the passing of the property of the goods even if the seller still has possession of them. **City Council of Ndola V Colcom Co-operative Zambia Ltd (1968) ZR 182**

(d)

In Zambia, three essential requirements for forming a partnership firm are: an agreement between partners, a business carried on for the joint benefit of partners, and the objective of profit-making. Below is a brief elaboration on the three factors;

1. Agreement between Partners:

A partnership is fundamentally based on an agreement, either written or verbal, between two or more individuals. This agreement outlines the terms of their association, including contributions, profit-sharing, responsibilities, and management. There must be more than one person involved in the business

2. Joint Benefit:

The partnership's business activities must be conducted for the mutual benefit of all partners. This means that each partner should derive some form of advantage or profit from the business operations.

3. Profit Motive:

The primary objective of forming a partnership in Zambia should be to generate profits. The business must be structured and operated with the intention of making a profit that will be distributed among the partners.

SOLUTION SIX

(a) **By-Laws** are made by local authorities under powers given by Parliament. These only affect the activities of people living within the particular geographical area. Professional bodies such as ZiCA are also given powers to regulate members' conduct while **Statutory Instruments** are passed by Ministers and are the main form of delegated legislation. Where power is delegated to a government Minister to make rules and regulation of a specific nature, such as the minimum wages and conditions of employment, these are brought into effect by SIs.

(b) The Supreme Court is the highest court of appeal in the land. The Supreme Court has appellate jurisdiction to hear appeals from the Court of Appeal and jurisdiction conferred on it by other laws. The Supreme Court does not enjoy trial jurisdiction: it is not a court of first instance.

The Supreme Court is created under Article 124 of the Constitution. The jurisdiction and procedure of the Supreme Court is set out in the Supreme Court Act Chapter 25 of the Laws of Zambia. This Act's preamble states that it is:

'An Act to provide for the constitution, jurisdiction and procedure of the Supreme Court of Zambia; to prescribe the powers of the court and to provide for matters connected therewith or incidental thereto.'

The Supreme Court is presided over by Supreme Court judges appointed by the President on the advice of the Judicial Services Commission. It is composed of the Chief Justice, Deputy Chief Justice and eleven other judges or a higher number of judges as prescribed.

The Supreme Court is bound by its own decisions, except in the interest of justice and development of jurisprudence. Decisions of the Supreme Court are binding on all the lower courts. Its decisions are final and conclusive.

(c) It can be stated that a fixed charge is a form of protection given to secured creditors relating to specific assets of a company. The charge grants the holder the right of enforcement against the identified asset. Fixed (or specific) charges attach to the relevant asset as soon as the charge is created. By its nature, a fixed charge is best suited to assets which the company is likely to retain for a long period. A mortgage is an example of a fixed charge (in the event of default in repayment or some other matter) so that the creditor may realize the asset to meet the debt owed. Fixed charges rank first in order of priority in liquidation while a floating charge has been defined, **in Re Yorkshire Woolcombers Association Ltd 1903 as:**

(a) A charge on a class of assets of a company, present and future...
(b) Which class is, in the ordinary course of the company's business, changing from time to time
(c) Until the holders enforce the charge, the company may carry on business and deal with the assets charged.

Floating charges do not attach to the relevant assets until the charge crystallizes. A floating charge is not restricted to assets such as receivables or inventory. A floating charge over 'the undertaking and assets' of a company (the most common type) applies to future as well as to current assets.

(d) In addition to his normal administrative duties, the secretary has special duties in respect of meetings before the meeting as follows:

(i) Summon meetings at the instance of the board of directors by issuing notice to all those who are entitled to receive them
(ii) Prepare the agenda in consultation with the chairman
(iii) Provide the chairman with particulars for, or prepare the outline of, any speech which he is to deliver
(iv) Get together all reports, documents and correspondence which are likely to be needed at the meeting and to arrange them in the order of business as disclosed by the agenda.

END OF SUGGESTED SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA CERTIFICATE IN ACCOUNTANCY

CA 1.5: MANAGEMENT THEORY AND PRACTICE

MONDAY 9 JUNE 2025

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: There are FIVE (5) questions in this section. Attempt question TWO (2) and any other THREE (3) questions from the remaining FOUR (4) 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.

<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 A hazard is a ……………………………….

A. Risk which has a hazard.
B. Careless attitude of employees.
C. Workers threatening to go on go-slow.
D. Possible source of danger.

(2 marks)

1.2 A Position Audit is…………………………..

A. Assessing our positioning strategy in the market.
B. Part of the planning process that examines the current state of the business entity strategic capability.
C. Part of the planning process to conduct a financial audit on the company to determine its financial position.
D. The conclusion of auditors.

(2 marks)

1.3 What is Ethical absolutism?

A. The view that there is an unchanging set of ethical principles that will apply in all situations, at all times and in all societies.
B. The view that a wide variety of acceptable ethical beliefs and practices exist.
C. The view that different opinions may exist on morality and ethics but that consensus may be reached in certain situations.
D. The view that Ethics are universal and correct and should be upheld by everyone.

(2 marks)

1.4 E-business is…………………………..

A. Browsing online for business opportunities.
B. Transformation of business to use internet technology.
C. Having a presence online.
D. Buying and selling of electronic products. (2 marks)

1.5 The major difference between a Strategic Plan and Business Plan is that:

A. A Strategic Plan is for well-established big companies, while a Business Plan is for SMEs.
B. Strategic plan are long term while business plan are short term.
C. Strategic plans often require management to retreat to develop it, while Business plans are developed from the office.
D. A strategic plan is a high-level plan that sets the overall strategic direction of the organisation, while a Business plan aims to demonstrate the feasibility of a business-usually in new market.

(2 marks)

1.6 Organisational configuration is:

A. Structure, processes and relationships through which the organisation operates.
B. Determining the identity and purpose of the organization.
C. Restructuring the organisation to suit the new strategic plan.
D. Examining the organisation to determine its strategic capability.

(2 marks)

1.7 Segment validity occurs when:

A. It is worth designing and developing a unique marketing mix for the specific segment.
B. The segment can be defined and is big enough to venture into.
C. The segment can be reached profitably.
D. All the above.

(2 marks)

1.8 Independence in Corporate Governance is a concept that refers to:

A. The organization operating as an independent entity.
B. The shareholders are independent from the directors.
C. Avoiding being unduly influenced by vested interests and free from any constraints that would prevent a correct course of action from being taken.
D. The auditors should be able to carry out their work without undue influence from management.

(2 marks)

1.9 …………………is called Alignment of interests.

A. The goals of the organization should suit the interest of all its stakeholders.
B. The goals of the organization should be aligned with the agenda of the government of the day.
C. Accordance between the objectives of the agents acting within an organization and the objectives of the organization as a whole.
D. The conduct and behavior of the employees to suit the interests of the organizations.

(2 marks)

1.10 Organizational knowledge is the collective and shared experience accumulated through systems, routines and activities of sharing across the organisation. Tacit knowledge is.....................

A. Knowledge in peoples' minds/heads.
B. Knowledge in recorded form.
C. Knowledge from the ancestors.
D. Knowledge from literature.

(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)

Imagine you are the change manager for a mining company introducing a new software system aimed at automating operations with the view of improving efficiency and workflow. However, employees are resistant to the change, expressing concerns about the learning curve and potential job losses.

Required:

(a) Outline six (6) elements in a change management plan that address these concerns to ensure a successful implementation of the new technology. (12 marks)

(b) Some changes in organizations are less "transformational" than others, and are easier to implement. Explain any four (4) factors that may trigger such changes. (8 marks)

[Total: 20 Marks]

<u>QUESTION THREE</u>

The public sector is the part of the economy that is controlled by the Government. This includes all the Government agencies and state-owned enterprises. Public sector organizations have certain characteristics which make them distinguishable from private sector organizations.

Required:

(a) Discuss the three (3) characteristics of a public sector organization. (9 marks)

(b) Outline any five (5) features of Public Sector Organizations. (5 marks)

(c) Explain any three (3) disadvantages of Public Sector Organization. (6 marks)

[Total: 20 Marks]

QUESTION FOUR

Organizational structure is the method by which work flows through an organization. It allows groups to work together within their individual functions to manage tasks. An organizational structure is viewed as an intangible web, or a system that outlines how certain activities are directed in order to achieve the goals of an organization. These activities can include rules, roles, and responsibilities. The organizational structure also determines how information flows between levels within the organization.

Required:

(a) Draw an example of a matrix structure. (12 marks)

(b) Outline any eight (8) principles of managements as submitted by Henry Fayol. (8 marks)

[Total: 20 Marks]

QUESTION FIVE

The emergence of the Cyber technology promises to disrupt business geographical barriers by offering the technological means to decentralize through Websites. Technology offers a decentralized peer-to-peer infrastructure where privacy, secure archiving, consensual ownership, transparency, accountability, identity management and trust are built in, both at the software and infrastructure levels. People are about to trade borderless and between Sole traders, Public and multi-national companies.

Required:

(a) Explain five (5) advantages of Decentralization. (10 marks)

(b) Show three (3) differences between the Sole trader enterprise and Public limited company. (6 marks)

(c) List down four (4) external stakeholders of a company. (4 marks)

[Total: 20 Marks]

QUESTION SIX

Amano Innovations is a recently established startup enterprise, specializing in developing e-learning Platforms for the education sector. The company has gained attention for its cutting-edge technology, but it faces challenges in a competitive market. The management team has been instructed by the Board of Directors to conduct a SWOT analysis.

Required:

(a) Explain the purpose of conducting a SWOT analysis for a business like Amano Innovations. (4 marks)

(b) State any four (4) primary functions of the Board of Directors as defined in the UK Good Governance Standard for Public Services (2004). (12 marks)

(c) State the purpose of conducting a position audit. (4 marks)

[Total: 20 Marks]

END OF PAPER

CA 1.5 MANAGEMENT THEORY AND PRACTISE - SUGGESTED SOLUTIONS

SOLUTION ONE

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

SOLUTION TWO

(a) A change management plan to address these concerns would include:

(i) Education and communication: If the resistance to change is caused by misunderstanding, management should deal with the problem by educating and informing employees. The aim is to remove the misunderstanding.

(ii) Participation and involvement: It may be possible to overcome resistance to change by involving employees in the change process. Participation and involvement goes a long way to lowering their resistance.

(iii) Facilitation and support: Management may decide to prevent resistance by offering help and support to individuals who are worried about the change. Measures to provide facilitation and support might include; counselling, special training or giving individuals some time off work.

(iv) Negotiation and agreement: This approach may be necessary when the individuals who are resisting change are in the position of power and may be able to resist successfully. Management might negotiate with them to reach a deal.

(v) Manipulation and co-optation: If the organisation cannot afford to pay employees to accept change or leave the organisation, an alternative approach to change is to invite the individuals to join the change team.

(vi) Explicit or implicit coercion: Coercion means forcing people to accept the change or accept the consequences if they don't. This approach is recommended only when the change has to implemented quickly.

(b) Examples of any Four (4) factors that may trigger changes that are less transformational are;

(i) A general sense that the organisation could perform better.

(ii) A perceived need to improve organisational flexibility, quality or to develop new customer concern.

(iii) A sense that skills and abilities of people are under-utilised or concerns about a lack of commitment from the employees.

(iv) Concerns about ineffective communications or poor performance indicators.

(v) Fractious relationships between managers and the managed.

SOLUTION THREE

(a) The characteristics of a public sector organisation include:

(i) Accountability – The senior management is accountable to the government and to Parliament.

(ii) Funding – The public sector an obtain funds oi three main ways namely, taxes, its goods and services and borrowing.

(iii) Limited resources - despite the potentially huge demand for public services, their constraints on government expenditure. Resources are limited and the demand for the public service (for example, education) cannot always be met in full.

(b) Five (5) Features of Public Sector Organizations.

(i) Financed by Government.

(ii) Public endeavours are funded by the public authority.

(iii) They are run and managed by the government.

(iv) Financial Independence.

(v) Provide Public Services.

(vi) They are Useful for Various Sectors.

(vii) Direct Channels for Using Foreign Money.

(viii) Helpful in Implementing Government Plans.

(ix) Autonomous or Semi-independent Bodies.

(x) Public sector organisations are owned by the government.

(xi) They provide goods and services for the benefit of the community.

(xii) They operate with money raised from taxes.

(c) The disadvantages of Public sector Organisation

(i) Cost. Public Sector Organisations may be inefficient and waste government resources.

(ii) Accountability: the leaders of Public Sector Organisations may not be sufficiently accountable for their performance.

(iii) Interference: politicians may seek to control the important decisions by the organisations. These politicians may not be familiar with the operation of the business, so their influence may be adversely affect the decision making process. Pressures to get elected may persuade the government to postpone but unpopular decisions.

SOLUTION FOUR

(a)

	Production Dept	Sales Dept	Finance Dept	Distribution Dept	R & D Dept	Marketing Dept
Project Manager A						
Project Manager B						
Project Manager C						

(b) The 14 principles of Management of Henri Fayol are:

1. Division of Work
2. Authority and Responsibility
3. Discipline
4. Unity of Command
5. Unity of Direction
6. Subordination of Individual Interest
7. Remuneration
8. The Degree of Centralization
9. Scalar Chain
10. Order
11. Equity
12. Stability of Tenure of Personnel
13. Initiative
14. Esprit de Corps

SOLUTION FIVE

(a) Explain five (5) advantages of Decentralisation

(i) Decision are made at a local level
(ii) Resources are used at a local level
(iii) Implementation of projects is faster
(iv) It promotes motivation
(v) Reduces pressure on central executives

(b) Show three differences between a Sole trader enterprise and a Public limited company

(i) Sole trader has private ownership while public limited companies have public ownership.
(ii) Sole trader does not disclose profits to the public while Public Limited are mandated to disclose their profits to the public.
(iii) Sole trade does not require much process to register while Public limited companies have much process to comply on registration

(c) List down Four (4) external stakeholders of a company

(i) Financial institutions
(ii) Government
(iii) Customers (Buyers)
(iv) Suppliers

SOLUTION SIX

(a) The purpose of conducting a SWOT analysis for a business like Amano Innovations:
SWOT is an acronym which stands for Strengths, Weaknesses, Threats and Opportunities. The purpose of conducting SWOT analysis is to understand the organisation's current position in the market by way of bringing together internal strengths and weaknesses as well as external threats and opportunities so that potential strategies may be developed and assessed.

(b) Primary functions of the Board of Directors include:
   (i) Constructively challenging and scrutinizing the executive
   (ii) Ensuring that the public voice is heard in decision making
   (iii) Forging strategic partnership with the organisations.
   (iv) Monitoring the Chief Executive
   (v) Monitoring the Control systems

(c) The purpose of conducting a position audit: The purpose of conducting a position audit is to assess the current position of an organisation.
Position audit is an assessment of all aspects of an organisation's capabilities and resources which leads to the identification of the strengths and weaknesses.

END OF SUGGESTED SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA CERTIFICATE IN ACCOUNTANCY

CA 1.6: BUSINESS COMMUNICATION

WEDNESDAY 11 JUNE 2025

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: There are FIVE (5) questions in this section. Attempt questions TWO (2) and any other THREE (3) questions from the remaining FOUR (4) 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 …. is the other name for the computer's memory called?

A. Memory output storage
B. Memory input storage
C. Internal storage
D. A working area

(2 marks)

1.2 Which one of the following can be used to navigate a long document through small pictures of each page?

A. Gridlines.
B. Ruler.
C. Thumbnails.
D. Document map.

(2 marks)

1.3 Which IT application control is primarily responsible for ensuring the accuracy, completeness, and validity of data entered into a system?

A. Output Controls.
B. Processing Controls.
C. Input Controls.
D. Access Controls.

(2 marks)

1.4 Which of the following key combinations achieves copy and paste function in application programs?

A. Ctrl – L and Ctrl – T
B. Ctrl – D and Ctrl – V
C. Ctrl – F and Ctrl – E
D. Ctrl – C and Ctrl - V (2 marks)

1.5 Which function in word processing software allows users to change the appearance of text, such as font style, size, and color?

A. Format Painter.
B. Spell Check.
C. Font Editor.
D. Formatting Toolbar.

(2 marks)

1.6 Define the term 'quorum'.

A. An announcement and invitation to attend a meeting.
B. A list of items to be discussed.
C. A minimum number of people required to attend a meeting.
D. A record of the previous discussions of a meeting.

(2 marks)

1.7 Which direction of communication depicts an employee sending a progress report to a manager in the same department?

A. Lateral communication.
B. Diagonal communication.
C. Upward communication.
D. Downward communication.

(2 marks)

1.8 What is the appropriate complimentary close when the salutation is 'Dear Sir/Madam'?

A. Yours sincerely.
B. Yours faithfully.
C. Yours respectfully.
D. Regards.

(2 marks)

1.9 A bar graph is best used for ______________________________.

A. Showing trends over time.
B. Comparing categories.

C. Displaying proportions.

D. Presenting survey data.

(2 marks)

1.10 Which of the following best describes decoding?

A. The process by which the receiver interprets the message from the sender.

B. The sender converts the ideas into a message.

C. Response of the receiver to the sender.

D. The process of transmitting a message to the receiver.

(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)

(a) Zambia Breweries is a leading beverage company in Zambia, specializing in the production and distribution of various alcoholic and non-alcoholic beverages. With a diverse product portfolio and nationwide distribution network, Zambia Breweries relies on efficient information support systems to manage production, logistics, sales, and marketing operations effectively.

Required:

Explain five (5) ways in which Zambia Breweries can implement IT application controls to ensure the identification and completeness of data within its information systems. (10 marks)

(b) Spreadsheets can be used by accountants for a number of tasks.

List five (5) common applications of spread sheets that can be used. (5 marks)

(c) State five (5) control issues for most network configurations. (5 marks)

[Total: 20 Marks]

<u>QUESTION THREE</u>

(a) BolaBET is a leading online betting platform that offers a wide range of sports betting opportunities to customers worldwide. With a large user base and significant financial transactions occurring daily, BolaBET recognizes the importance of robust information technology security measures to safeguard customer data, prevent fraud, and ensure the integrity of its platform.

Required:

Identify five (5) components of a framework for information technology security tailored to the needs of BolaBET. (10 marks)

(b) The Database Management System (DBMS) has the effect of decoupling the data from the applications that use it. State any five (5) abilities the DBMS is able to offer. (5 marks)

(c) Enterprise resource planning (ERP) is a platform companies use to manage and integrate the essential parts of their businesses. Many ERP software applications are critical to companies because they help them implement resource planning by integrating all the processes needed to run their companies with a single system.
State five (5) benefits that may be realized from a successfully-implemented ERP system. (5 marks)

[Total: 20 Marks]

QUESTION FOUR

(a) Outline three (3) components that make up the information framework utilized by an organization such as Zambia Environmental Management Agency that is dedicated to manage and support the health hazard environment. (6 marks)

(b) Explain the distinction between data and information, highlighting their respective roles in supporting health environment at an organization such as Zambia Environmental Management Agency. (6 marks)

(c) Explain the meaning of the following MS-Excel errors when seen in the spreadsheet after computation:

(i) #Ref! (2 marks)
(ii) #Num! (2 marks)
(iii) ##### (2 marks)
(iv) #DIV/0! (2 marks)

[Total: 20 Marks]

QUESTION FIVE

You are the Chief Accountant at Maxmill. Last month, the company ordered computers, scanners and printers from Phoenix Electronics to enhance the operations of the company. However, the company experienced technical problems which have resulted in the late payment to the supplier.

Required:

(a) Write an appropriate letter to Phoenix Electronics explaining the situation and assure them of your commitment. (14 marks)

(b) Explain any three (3) differences between a formal and informal letter. (6 marks)

[Total: 20 Marks]

QUESTION SIX

Due to financial difficulties, your organization was unable to hold the Annual General Meeting (AGM) the previous year. This development that has happened has not pleased shareholders. Some of the decisions you have taken as a board have been contested by many shareholders. You have secured funding to conduct the meeting, and you are now prepared to conduct the AGM.

Required:

(a) State any two (2) reasons why holding AGMs is important. (4 marks)

(b) Explain any three (3) rules governing formal meetings. (6 marks)

(c) Explain the difference between the following terms:

(i) Present and in attendance (2 marks)

(ii) Agenda and addendum (2 marks)

(iii) Members and proxy (2 marks)

(iv) Casting a vote and unanimous (2 marks)

(v) Date of meeting and date of notice (2 marks)

[Total: 20 Marks]

END OF PAPER

CA 1.6: BUSINESS COMMUNICATION - SUGGESTED SOLUTIONS

SOLUTION ONE

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

SOLUTION TWO

(a) How Zambia Breweries can implement IT application controls to ensure the identification and completeness of data within its information systems.

IT application controls are designed to ensure the accuracy, completeness, and validity of data processed within information systems. These controls, which can be manual or automated, focus on the input, processing, and output of data to prevent, detect, and correct errors. Specifically, they aim to ensure that all relevant data is identified, captured, and processed correctly, and that only authorized users have access to the system and its data.

Here's a breakdown of how IT application controls achieve this:

(1) Identification and Authentication:

(i) User Identification**:**
Systems should uniquely identify and authenticate users through mechanisms like usernames, passwords, and multi-factor authentication.

(ii) Role-Based Access**:**
Access to applications and data should be controlled based on user roles, ensuring that individuals only have access to the information and functionality they need.

(2) Input Controls:

(i) Data Validation:
Checks are implemented to ensure that data entered into the system conforms to predefined formats, ranges, and other rules.

(ii) Duplicate Checks:
Controls prevent the entry of duplicate data, ensuring that records are not entered more than once.

(iii) Completeness Checks:
Controls ensure that all required fields are completed before a record is accepted.

(iv) Audit Trails:
Comprehensive audit trails capture all changes to data, providing a history of modifications and who made them.

(3) Processing Controls:

(i) Data Transformation**:** Controls ensure that data is transformed correctly during processing, maintaining its integrity.

(ii) Error Handling**:** Systems should be designed to detect and handle errors gracefully, preventing the propagation of incorrect data.

(iii) Job Scheduling**:** Controls ensure that automated jobs are executed correctly and on time.

(4) Output Controls:

(i) Report Accuracy**:**
Controls ensure that reports and outputs generated by the system are accurate and complete.

(ii) Data Security**:**
Controls are in place to protect sensitive data during transmission and storage.

(5) Integrity Controls:

(i) Data Validation**:** Ensures that data remains consistent and correct during processing and storage.

(ii) Regular System Checks**:** Verifies the integrity of data in databases and other storage systems.

(b) List five (5) common applications of spread sheets that can be used.

- Computations
- Organizing data
- Analyzing data
- Forecasting
- Project management
- Create budgets

(c) State five (5) control issues for most network configurations.
Five control issues in most network configurations include security vulnerabilities, performance bottlenecks, misconfigurations, lack of visibility, and inadequate change management. These issues can lead to network instability, security breaches, and reduced efficiency.

Here's a more detailed breakdown:

(1). Security Vulnerabilities:

Weaknesses in network configurations, such as unencrypted communication, default settings, or outdated software, can be exploited by attackers to gain unauthorized access or compromise sensitive data.

(2). Performance Bottlenecks:

Issues like high bandwidth usage, slow DNS lookups, or physical connectivity problems can cause delays and slowdowns, impacting user experience and productivity.

(3). Misconfigurations:

Incorrect settings for IP addresses, firewall rules, or network segmentation can lead to connectivity issues, communication errors, and security risks.

(4). Lack of Visibility:

Insufficient monitoring and logging can make it difficult to identify and resolve network issues, track performance, and detect security threats.

(5). Inadequate Change Management:
A lack of proper procedures for implementing and tracking network configuration changes can result in errors, disruptions, and security breaches. (Additional – Hacking, Data theft, malware, security, firewalls

SOLUTION THREE

(a) The framework for information technology security at BolaBET encompasses several key components designed to protect the confidentiality, integrity, and availability of its systems and data:

(i) Risk Assessment: Conduct regular risk assessments to identify potential threats, vulnerabilities, and risks to BolaBET's IT infrastructure, applications, and data. Evaluate the likelihood and impact of various security incidents to prioritize mitigation efforts effectively.
(ii) Policies and Procedures: Establish comprehensive security policies, standards, and procedures governing the use of IT resources, access controls, data protection, incident response, and compliance with regulatory requirements. Ensure that employees receive training and awareness programs to understand and adhere to security policies.
(iii) Access Controls: Implement robust access controls to restrict access to sensitive systems and data based on the principle of least privilege. Utilize authentication mechanisms such as passwords, multi-factor authentication (MFA), and biometric authentication to verify user identities and prevent unauthorized access.
(iv) Network Security: Deploy firewalls, intrusion detection and prevention systems (IDPS), and network segmentation techniques to safeguard BolaBET's network infrastructure from unauthorized access, malware, and other cyber threats. Regularly monitor network traffic and conduct vulnerability assessments to detect and mitigate security vulnerabilities proactively.
(v) Endpoint Security: Implement endpoint protection solutions such as antivirus software, endpoint detection and response (EDR) tools, and mobile device management (MDM) solutions to secure devices used by employees and customers to access BolaBET's platform. Enforce security policies on endpoint devices to minimize the risk of malware infections and data breaches.
(vi) Monitoring and Logging: Implement robust logging and monitoring mechanisms to track user activities, system events, and security incidents occurring within BolaBET's IT environment. Regularly review and analyze logs to identify suspicious behavior, anomalies, or security breaches that require further investigation.

(b) Five (5) abilities DBMS is able to offer?

(i) Add, amend and delete records
(ii) Retrieve data for reference or processing
(iii) Present data in different forms and combinations
(iv) Control access to data on the files by means of passwords and other security procedures
(v) Allow the database to evolve without requiring modifications to applications programs
(vi) Record transactions

(c) Benefits of a successfully-implemented ERP system.

(i) Allowing access to the system to any individual with a terminal linked to the system's central server
(ii) Decision support features, to assist management with decision making
(iii) Extranet links to the major suppliers and customers, with electronic data interchange facilities for the automated transmission of documentation such as purchase orders and invoices

(iv) Many of the inefficiencies in the way things are done can be removed. The company can adopted shipping and manufacturing work more closely together to get products produced

(v) An organisation can align itself to a single plan, so that all activities can be coordinated

(vi) Information and work practices can be standardized so that the terminology used is similar, no matter where you work in the company.

(vii) Streamlined Business Processes and increased efficiently, leading to more efficient workflows and reduce manual effort

(viii) Improved Data Accuracy and consistency with a centralized database for reducing errors

(ix) Enhanced collaboration and communication

(x) Better customer service by providing access to comprehensive customer information.

QUESTION FOUR

(a) Three (3) components that make up the information framework utilized by an organization such as ZEMA.

(i) Data Collection: ZEMA collects a wide range of data related to environment populations, habitat characteristics, environmental factors, and human-wildlife interactions. This includes field observations, scientific studies, satellite imagery, and community surveys conducted in collaboration with local stakeholders.

(ii) Data Storage: Collected data is stored in centralized databases and repositories accessible to authorized personnel within ZEMA. These databases are organized and indexed to facilitate efficient data retrieval, analysis, and reporting.

(iii) Data Analysis: ZEMA employs advanced data analysis techniques and tools to analyze collected data and derive actionable insights relevant to environment management and conservation. Data analysis methods may include statistical analysis, spatial modeling, and predictive modeling to identify trends, patterns, and conservation priorities.

(iv) Information Sharing: ZEMA disseminates information and findings derived from data analysis to various stakeholders, including government agencies, environmental partners, researchers, and local communities. Information sharing fosters collaboration, transparency, and informed decision-making in conservation efforts.

(v) Monitoring and Evaluation: ZEMA continuously monitors and evaluates the effectiveness of its conservation initiatives based on feedback and performance metrics derived from data analysis. Monitoring and evaluation help assess progress towards conservation goals, identify areas for improvement, and adapt strategies as needed to maximize impact.

(b) Difference between data and information.

(i) Data: Data refers to raw or unprocessed facts, observations, and measurements collected during field surveys, research studies, and monitoring activities. In the context of ZEMA, data may include environmental hazards, population counts, habitat characteristics, GPS coordinates, and weather data. Data by itself lacks context and meaning but serves as the foundation for generating information.

(ii) Information: Information is data that has been processed, analyzed, and interpreted to provide context, insights, and actionable knowledge. At ZEMA information may include environmental health, waste disposal trends, habitat suitability maps, conservation status assessments, and threat assessments. Information is derived from data through analysis and synthesis, enabling informed decision-making and conservation planning.

(c) What each of the following excel errors mean when seen in an excel cell after computation:

(i) #Ref! - it shows when a formula refers to a cell that's not valid. This happens most often when cells that were referenced by formulas get deleted or pasted over.

(ii) #Num! – it occurs when the formula contains invalid numeric values. If you are calculating a problem with money, don't include the dollar sign before the number, as it presents an invalid value within the excel calculation.

(iii) ##### - it occurs when an entered value is wider than the current cell width for a cell formatted for numbers produces a result that is wider than the cell

(iv) #DIV/0! - it occurs when the divisor or denominator in a division operation is equal to zero either explicitly. A formula references a cell that is blank.

SOLUTION FIVE

(a) Letter

Max mil limited
PO .B ox 31735
Choma

Date during examination time

The managing director
Phoenix Electronic
P.O. Box Rw15L
Lusaka.

Dear Sir,

Settlement of debt number 0201/BHL

We are writing in connection with the order number 0201/BHI whose invoice of Seventy five thousand kwacha (K75,000) is still outstanding. The order was for five computers and two scanners and two network printers that were supplied to us by your selves.

I wish to assure you of our commitment to paying this bill within the shortest period possible. The delay to do so has been caused by our bank that has taken time to clear our account following a huge foreign cheque that we received.

This further resulted in a delay to clear statutory obligation to NAPSA before which all payment could be authorised.

It is our sincere hope that you will bear with us for a few days more as the entire setback has now been resolved.

We deeply regret the inconvenience this delay has caused and prey that it will not spoil our good relationship.

Yours faithfully
Signature
Mulelela Mbolongwe
For/ managing Director
Maxwell limited.

(b)

i. A formal letter has a formal tone while an informal one is causal
ii. Formal letters have 2 addresses while informal ones have 1
iii. Formal letters are used for business purposes while informal one are personal

SOLUTION SIX

(a) AGM

(i) Present the company's financial statements

(ii) Seek approval of other business transactions of the company

(iii) They provide a platform for shareholders to express their views and ask questions of the company's management team

(iv) They are important for the transparency they provide, the ability to include shareholders

(b) Rules governing formal meetings

(i) The shareholders are legally required to have at least 21 days written notice before the meeting.

(ii) Minutes must be recorded

(iii) In case of one being unavailable, the can send a proxy

(iv) A quorum has to be met before a meeting starts

(v) Formal meetings usually have elected or appointed office bearers

(c) (i) A member who attends a meeting while attendance has to do with an Invited guest present at a meeting

(ii) Agenda, list of items to be discussed in a meeting while an addendum is a proposed amendment to the agenda.

(iii) A member is an official member of a body that is meeting while a proxy is representative of a member of the meeting.

(iv) Avote casted by someone or the chairperson in order to break a tie while unanimous has to do with the situation where all members agree on some thing or where no one vote/d against a resolution.

(vi) Date of the meeting is a date on which a meeting is scheduled to be held while date of notice is the date on which the notice is given

CA ZAMBIA PROGRAMME EXAMINATIONS

CA APPLICATION ADVANCED DIPLOMA IN ACCOUNTANCY

CA 2.1: FINANCIAL REPORTING

MONDAY 9 JUNE 2025

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

Luapula Ltd company has shareholdings in two (2) other companies, Mansa Ltd and Chama Ltd. Below are the statements of financial position of the three (3) entities:

Statements of Financial Position as at 31 July, 2024

	Luapula Ltd	Mansa Ltd	Chama Ltd
Non-current assets	**K million**	**K million**	**K million**
Property, plant and equipment	235.0	52.5	20.0
Investment property	5.0		
Franchise right	10.0	20.0	30.0
Investments	260.0	24.0	2.5
	510.0	96.5	52.5
Current assets			
Inventories	190.0	25.5	11.5
Trade receivables	22.0	10.0	1.5
Value Added Tax (refund)	10.0	2.0	5.0
Cash & Bank	12.0	6.5	14.0
	234.0	44.0	32.0
	744.0	**140.5**	**84.5**
Equity			
Equity share of K0.25 each	225.0	50.0	30.0
Retained earnings	179.0	32.5	30.5
	404.0	82.5	60.5
Non-current liabilities			
6% Loan Notes	50.0	20.0	-
10% Redeemable preference shares	10	20.0	10
Current liabilities			
Contingent consideration	100	-	-
Trade payables	171.5	18.0	9.0
Dividends Declared	8.5	-	5.0
Total liabilities	340.0	58.0	24.0
Total equity & liabilities	**744.0**	**140.5**	**84.5**

The following additional information is relevant:

(i) On 1 August 2023, Luapula bought a 40% holding in the ordinary shares of Chama Ltd when the retained earnings balance of Chama stood at K26 million. The two (2) considerations were an immediate cash payment of K25 million and issuing at par K10 million (6% loan note). Both considerations have also been recorded by Luapula. The directors of Luapula negotiated the right to appoint seven (7) directors to Chama's 15-person board as a result of its investment.

(ii) Luapula bought 150 million ordinary shares in Mansa Ltd on 1 August 2022, when the retained earnings of Mansa Ltd were K22 million. The cash consideration was agreed at K110 million for these shares. In addition, Luapula Ltd agreed to pay a further amount on 1 August 2024 that was contingent upon the post-acquisition performance of Mansa. At the date of acquisition Luapula Ltd assessed the fair value of this contingent consideration to be K100 million, but by 31 July, 2024 it was clear that the actual amount to be paid would be only K90 million (ignore discounting). Luapula Ltd has recorded the cash payment and provided for the initial estimate of K100 million for the contingent consideration.

(iii) Luapula has not accounted for any dividend receivable from its group companies. Both Luapula and Chama have declared dividends as shown in current liabilities. Chama's declared dividend relates entirely to the post acquisition period. No other dividends were paid or declared in the year.

(iv) At the date of acquisition, Luapula conducted a fair value exercise on Mansa's net assets which were equal to their carrying amounts with the following exceptions:

(a) At the date of acquisition, Mansa had a brand which had a fair value of K40 million below its carrying value. Shortly after acquisition, Luapula's directors used an independent professional expert based in Lusaka to value the brand and the expert found the brand to have no recoverable amount and Mansa wrote it off.

(b) A property held by Mansa had a fair value of K10 million in excess of its carrying value. 75% of the value of this property relates to buildings with a useful economic life of ten (10) years at the date of acquisition.

(c) Mansa had an unrecorded deferred tax liability of K7 million, which was unchanged as at 31 July 2024.

(v) The investment property in the books of Luapula represents an office facility that was completed on 1 August 2023 at the cost of K3.5 million. The useful economic life of the facility was estimated at ten (10) years. Immediately after the acquisition of Mansa, Luapula began to rent this property out to Mansa under a lease agreement. Luapula group values its investment property using the fair value model under IAS 40 Investment Properties and its owner-occupied properties using the cost model under IAS 16 Property, Plant and Equipment.

(vi) Immediately after the acquisition, Mansa issued K40 million of 6% loan notes, K8 million of which were bought by Luapula Ltd. This investment has been correctly recorded in the books of Luapula under the heading "Investments". All interest due on loan notes as at 31 July 2024 has been paid and recorded.

(vii) Luapula's policy is to value any Non-Controlling Interests (NCI) at their proportionate share of identifiable net assets at the acquisition date.

(viii) During the financial year ended 31 July 2024, Mansa had sold goods to Luapula amounting to K30 million. The purchase price included a mark-up of 20% on cost. Mansa's normal mark-up on goods sold is 30%. Of these goods, one-quarter remained in the closing inventory of Luapula at the reporting date.

(ix) Recorded in the books of Luapula was an intra-group trade payable of K10 million owed to Mansa at the year-end. However, the books of Mansa showed a balance of K11 million owed by Luapula. It transpired that Mansa's computer system had automatically charged to Luapula's account, interest of K1 million due to late payments. It was subsequently agreed that Mansa would waive this interest.

(x) At 31 July 2024 the value of investment in Chama was impaired by K20 million.

Required:

Prepare the consolidated statement of financial position for the Luapula group as at 31 July 2024 in accordance with International Financial Reporting Standards (IFRSs).

[Total:40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt any THREE (3) questions.

QUESTION TWO

The balances below related to Kumbutso Limited for the year ended 31 December 2023:

	K '000'	K '000'
Land and Buildings –at cost (Land K300,000)	1,200	
Accumulated Depreciation Buildings-1 January 2023		180
Plant and Machinery at cost	750	
Accumulated Depreciation Plant & machinery -1 January 2023		100
Investment income		35
Revenue		2,726
Ordinary share of K1.00 each		250
Retained earnings on 1 January 2023		460
Share premium		100
Trade Payables		345
12% Loan Note		800
current tax		70
Trade Receivables	245	
Cost of sales	840	
Inventories 31 December 2023	190	
Distribution expenses	460	
Ordinary dividends paid	65	
Investment properties -valuation 1 January 2023	350	
Administration expenses	520	
Interest on loan	96	
Deferred Tax Assets - 1 January 2023	150	
Bank	160	
Lease rental paid	40	
	5,066	5,066

The following information is relevant to preparation of financial statements:

1. On 1 April 2023 Kumbutso made a bonus issue of two (2) shares for every (5) existing shares at the start of the year. This issue has not been accounted for yet.

2. A professional surveyor valued investment property at 31 December 2023 to a fair value of K380,000.

3. Buildings are depreciated on a straight line basis over 50 years, and depreciation is charged to administration expenses. Land and buildings were revalued for the first time on 31 December 2023 to a fair value of K1,500,000, of which K450,000 related to land. The property was acquired on 1 January 2012. This revaluation is yet to be incorporated in the accounts. Kumbutso does not make annual transfer to retained earnings.

4. Kumbutso entered into a contract for leasing plant over a period of five (5) years commencing 1 January 2023. The present value of future lease payments at inception of the lease amounted to K150,000. The lease requires Kumbutso to pay rentals of K40,000 on 31 December each year over the lease term. The interest rate implicit in the lease is 10%. The rent due on 31 December 2023 has been paid. The useful economic life of the leased plant is estimated to be eight (8) years.

   Plant other than the leased plant is depreciated at the rate of 20% per annum on a reducing balance basis. Depreciation of all items of plant is taken to cost of sales.

5. The effective interest on the 12% loan is equal to the nominal interest.

6. The current tax balance in the trial balance was an over-/under-estimation of the income tax on profits for the year to 31 December 2022. Directors estimated that the income tax on profits for the current year is K85,000.

   On 31 December 2023, the net taxable temporary differences amounted to K350,000. The applicable income tax rate is 30%.

Required:

You are required to prepare:

(a) The statement of profit or loss and other comprehensive income for the year ended 31 December 2023. (8 marks)

(b) The statement of changes in equity for the year ended 31 December 2023. (4 marks)

(c) The statement of financial position as at 31 December 2023. (8 marks)

[Total: 20 Marks]

QUESTION THREE

(a) The following are accounting ratios calculated for Jerusha limited. The company has been trading in medical equipment. Such equipment is undergoing fast technological change due to innovation.

	Jerusha Limited	**Sector Average**
Annual Sales	K70,000	K80,800
Gross profit margin	24.8%	24.3%
Operating (Net) Profit margin	12%	7%
Asset Turnover	5 times	3 times
Return on Capital employed	45%	20%

(i) Explain the meaning of the four ratios already calculated (4 marks)

(ii) Comment on Jerusha's results shown by the calculated ratios in comparison with the industry averages, mentioning any reservations you may have about ratio analysis being undertaken. (6 marks)

(b) Jerusha has the following capital structure and wishes to issue shares. Assess how the investment ratios (EPS and P/E ratios) will change as a result of the issue of shares:

	Jerusha Limited
Ordinary Shares of K1.50 each	K300,000
Retained earnings for the year	K20,000

The retained earnings figure is after deducting taxation of K8,000 and dividend paid of K5,000. The market price of the shares is K4.50 each.

(i) Explain the meaning of basic earnings per share according to *IAS 33 Earnings per Share*, and circumstances that may limit its usefulness. (4 marks)

(ii) Calculate the basic earnings per share from the information above. (2 marks)

(iii) Calculate the Price/Earnings ratio and outline what possible action Jerusha should take to improve the EPS and P/E ratios for the coming year. (4 marks)

[Total: 20 Marks]

QUESTION FOUR

(a) On 1 April 2023, Matyola Investments issued K150,000 worth of convertible bonds after passing a resolution in favour of raising finance for a project involving renewable energy at par. The bonds will be redeemable at par for cash or converted into K100 K1 shares per bond in three (3) years' time. The applicable market interest rates for similar three (3)-year bonds without conversion rights is 12%. Interest is due on 31 March each year at 8% per annum. The applicable market interest rates for a similar three-year bond without conversion rights is 12%. The following is an extract of relevant discount factors:

	1	2	3	Three Year Cumulative	
At the rate of 8%	0.926	0.857	0.794	2.577	At
the rate of 12%	0.893	0.797	0.712	2.402	

Required:

Explain, with supporting calculations how the transaction above will be accounted for in the financial statements of Matyola Investments at the end of the year ending 31 March 2024. (8 marks)

(b) Directors of Matyola investments are not sure of the carrying amounts of certain assets in a cash generating unit (CGU) the company has. They suspect something has happened to the assets. One thing they are sure of is that a project whose development costs amount to K15,000 has been abandoned. Yet the costs are included in the amount of intangible assets outlined below.

Asset	**K 000**
Goodwill	30
Intangible Assets	60
Land and Buildings	50
Property Plant and Equipment	35
Inventory	15
Net current assets	10
Total	200

Inventories and other current assets are deemed to be at their recoverable amounts. The impairment review conducted revealed that recoverable amount of the CGU is only K 100,000.

Required:

(i) Explain 'impairment of assets' in accordance with IAS 36 *Impairment of Assets*. (2 marks)

(ii) Outline two (2) internal and two (2) external indicators that assets could be impaired. (4 marks)

(iii) Allocate the impairment loss to individual assets and determine the carrying amount of the whole CGU above after the impairment review. (6 marks)

[Total: 20 Marks]

<u>QUESTION FIVE</u>

(a) The International Accounting Standards Board (IASB) recognizes the potential problems that management of some companies may have to deal with regarding the use of inappropriate accounting policies. The policies could have the effect of portraying an entity's financial performance or position in a favorable manner than it is in reality. This is referred to as 'creative accounting'.

Required:

Explain what is meant by the term 'creative accounting' and describe common ways in which management can manipulate financial statements to indulge in 'creative accounting'. (10 marks)

(b) Historical cost accounting has continued to be in use for decades now. It involves stating the value of a transaction at its actual amount paid/payable or received/receivable. This method of accounting has served users of financial statements with information about the reporting entity's financial performance and position that they have used to assess the stewardship of directors and made decisions. In times of inflation, published financial statements continue to be prepared under the historic cost convention despite its alleged limitations.

Required:

Explain why historic cost accounting has been criticised and explain some of the advantages associated with its use. (10 marks)

[Total: 20 Marks]

END OF PAPER

CA 2.1: FINANCIAL REPORTING - SUGGESTED SOLUTIONS

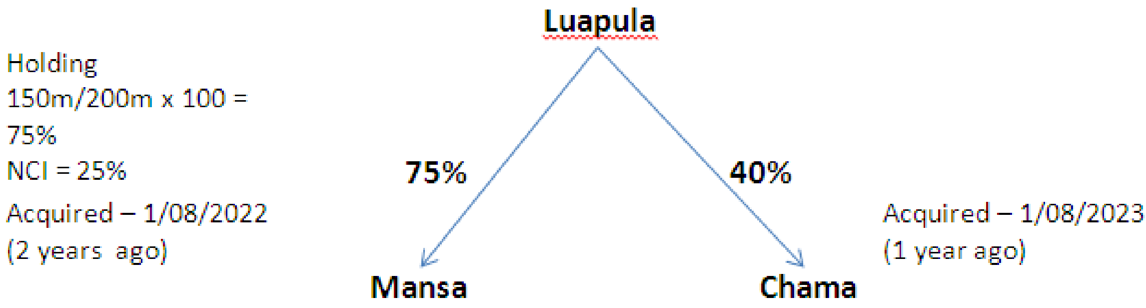
SOLUTION ONE

Consolidated Statement of Financial Position of Luapula Group Ltd as at 31 July 2024

	K million
Non-current assets:	
Property, plant and equipment (235+52.5 +8.5 (W7)+3.5-.35	299.15
Franchise right (10+20)	30.0
Goodwill (W3)	183.75
Investment in Associate (W6)	16.8
Other investments (7.0 +24.0) (W12)	31.0
	560.7
Current assets:	
Inventories (190+25.5-1.25(W8))	214.25
Trade receivables (22+10-1(W9)-10(W9))	21.0
VAT –Refundable (10 +2)	12.0
Dividend receivable from Associate (W10)	2.0
Cash & Bank (12+6.5)	18.5
	267.75
Total assets	**828.45**
Equity	
Equity shares	225.0
Retained earnings (W2)	206.01
	431.01
Non-controlling interest (W4)	20.44
	451.45
Non-current liabilities:	
6% Loan note (50+20-8)	62.0
10% Redeemable preference shares (10 +20)	30.0
Deferred tax liability	7.0
	99.0
Current liabilities:	
Trade payables (171.5+18-10(W9)	179.5
Dividends Declared (W10)	8.5
Contingent consideration	90.0
	278.0
Total equity & liabilities	**828.45**

Workings

(1) Group structure



Luapula owns 150m shares out of 200m in Mansa. This gives 75% ownership in Mansa for 2 full years therefore Mansa is a subsidiary.

Luapula has 40% ownership in Chama for the full year and can appoint directors, hence significant influence is exerted. Therefore, Chama is an associate.

(2) Fair value of net assets - Mansa

	At acquisition date K'million	At reporting date K'million	Post-acquisition K'million
Share capital	50	50	0
Retained earnings	22	32.5	10.5
Fair value adjustment	10	10	0
Depreciation on FV adjustment:			
(10 x 75%)/10 years x 2	0	(1.50)	(1.50)
Deferred tax	(7.0)	(7.0)	0
PURP	0	(1.25)	(1.25)
Interest charged on receivables	0	(1.00)	(1.00)
Inventories			
Fair value of Brand	(40.0)	0	40.0
	35	81.75	46.75

(3) Goodwill

	K'million
Cost of investment:	
Cash consideration	110
Contingent consideration	100
	210
NCI Value (K35 million x 25%)	8.75
	218.75
Fair value of net assets at acquisition	(35)
Goodwill	183.75

(4) Non - Controlling Interest

	K'million
NCI value at acquisition (W3)	8.75
Share of post – acquisition profits:	

(46.75 x 25%)	11.69
NCI at reporting date	20.44

(5) Group retained earnings

	K'million
As per financial statements of Luapula	179.0
Share of post-acquisition profits:	
Mansa (46.75 x 75%)	35.06
Chama (K30.5m – K26m) x 40%	1.80
Decrease in contingent consideration (90 – 100)	10.0
Reversal of fair value gain on investment property (5 – 3.5)	(1.50)
Depreciation on office facility (investment property) (3.5/10)	(0.35)
Share of dividends from associate (not accounted for) (K5m x 40%)	2.0
Impairment of investment in associate	(20)
	206.01

Alternatively group retained earnings can be calculated as follows:

	Luapula K'million	Mansa K'million	Chama K'million
As per financial statements	179.0	32.50	30.50
Pre-acquisition retained earnings	0	(22.0)	(26.0)
Depreciation on fair value adjustment:			
(K10m x 75%)/10 years x 2 years		(1.50)	0
Unrealized profit (K30m x 20/120 x 1/4)		(1.25)	0
Brand disposed of after acquisition		40.0	0
Reversal of interest on receivables		(1.00)	0
		46.75	4.50
Share of post-acquisition profits:			
Mansa (K46.75m x 75%)	35.06		
Chama (K4.50m x 40%)	1.80		
Decrease in contingent consideration (100 – 90)	10.0		
Reversal of fair value gain on investment property (K5m – K3.50)	(1.50)		
Depreciation on office facilities (K3.5m/10 years)	(0.35)		
Share of dividends from associate not accounted for (K5m x 40%)	2.0		
Impairment of investment in associate	(20.0)		
	206.01		

(6) Investment in Associate – Chama

	K'million
Cost of investment:	
Cash	25
6% Loan note	10
	35
Share of post-acquisition profits (30.5 – 26) x 40%	1.80
Impairment loss	(20)
	16.80

(7) Fair value adjustments (note (iv)):

	At acquisition	Movement	At rep. date
Property Mwansa	K10m	(K1.5m) **	K8.5m

**Movement = depreciation of the adjustment to the buildings component only for 2 full years since acquisition:

K10m * 75% / 10 years * 2 years = K1.5m. This is charged to the earnings of the company which holds (and therefore depreciates) the asset. Hence:

Dr PPE	K8.5m	
Dr Retained earnings – Chama	K1.5m	
Cr goodwill (Fair Value of net assets)		K10.0m

(8) Intra-group trading of goods

Unrealised profit (URP) on goods held in closing inventory:
(K30m * 20/120) * 1/4 (sold by Mansa therefore NCI IS affected) K1.25m

Adjustment to reduce reserves (Mansa) and Inventory:

Dr Retained Earnings (Mansa)	K1.25m	
Cr Inventory		K1.25m

(9) Intra-group balance outstanding & interest charged

Eliminate interest K1m:

Dr Retained earnings (Mansa)	K1.0m
Cr Trade receivables (Mansa)	K1.0m

Following the above adjustment, the intra group receivables and payables balance is now at K10.0m. Hence we must cancel those balances.

Dr Trade payables	K10.0m	
Cr Trade receivables		K10.0m

(10) Dividends

Chama's Declared dividend	K5m
Amount payable to Luapula (K5m x 40%)	K2m

Adjustment to show dividend receivable by Luapula and increase retained earnings (Luapula).

Dr Dividends receivable	K2.0m
Cr Retained earnings (Luapula)	K2.0m

(11) Investment property to the subsidiary:

The office facility is rented out to Mansa, a subsidiary. In the consolidated financial statements the classification of the office facility as investment property should be reversed and be accounted for as Property, Plant and Equipment (PPE) as follows:

Dr PPE	K3.50 million
Cr Investment Property	K3.50 million

Therefore, the fair value gain of K1.50 million (K5 million – K3.50 million) recognized in profit or loss, in accordance with IAS 40 – Investment Property, should be reversed as follows:

Dr retained earnings (Luapula)	K1.50 million
Cr Investment property	K1.50 million

Depreciation should also be charged on cost over the useful life of ten (10) years; K3.50 million/10 years = K0.35 million.

Dr Retained earnings (Luapula)	K0.35 million
Cr PPE	K0.35 million

(12) Reconciliation of investments in Luapula's financial statements

	K'million
As per financial statements	260.0
Cost of investment in shares of Mansa (110 + 100)	(210.0)
Cost of investment in shares of Chama (10 + 25)	(35.0)
Investment in loan notes of Mansa	(8.0)
Other investments	7.0

SOLUTION TWO

(a) Kumbutso's Statement of Profit or Loss and Other Comprehensive Income for the year ended 31 December 2023

	K'000
Sales	2,726
Cost of sales (W6))	(1,000)
Gross profit	1,726
Distribution costs	(460)
Administration expenses (520 + 18)	(538)
Profit from operations	728
Investment income (30 + 35) (W2)	65
Finance costs [(800 x 12%) = 96 + 15] (W3)	(111)
Profit before tax	682
Income tax expense (W4)	(270)
Profit for the year	412
Other comprehensive income	
Gain on revaluation (W1)	498
Total comprehensive income	910

(b) Kumbutso's Statement of Changes in Equity for the Year Ended 31 December 2023

	Ordinary shares K'000	Share premium K'000	Revaluation reserve K'000	Retained earnings K'000	Total equity K'000
Balance – 1 Jan 2023	250	100	0	460	810
Total comprehensive income	-	-	498	412	910
Bonus issue	100	(100)	-	-	-
Dividends paid	-	-	-	(65)	(65)
Balance – 31 December 2023	350	0	498	807	1,655

(c) Kumbutso's Statement of Financial Position as at 31 December 2023

	K'000	K'000
Non-current Assets		
Property, plant and equipment (W1)		2,140
Investment property (W2)		380
		2,520
Current Assets		
Inventories	190	
Trade Receivables	245	
Bank	160	
		595
Total Assets		3,115
Equity and Liabilities		
Equity		
Ordinary shares of K1.00 each		350
Share premium		0
Revaluation reserve		498
Retained earnings		807
		1,655
Non-current Liabilities		

Lease liability (W3)	97.50	
12% Loan note	800	
Deferred tax (W4)	105	
		1,002.5
Current Liabilities		
Trade payables	345	
Lease liability (W3)	27.5	
Current tax payable	85	
		457.5
Total equity and Liabilities		3,115

Workings

(1) Property, plant and equipment

	Land & Buildings	Plant & Machinery	Right of Use (ROU) Asset	Total PPE
	K'000	K'000	K'000	K'000
Cost balance - 1 Jan 2023	1,200	750	-	1,950
Acc dep balance – 1 Jan 2023	(180)	(100)	-	(280)
Net book value – 1 Jan 2023	1,020	650	-	1,670
Additions	-	-	150	150
Depreciation for the year (Note)	(18)	(130)	(30)	(178)
Net book value – 31 Dec 2023	1,002	520	120	1,642
Revaluation gain (balancing fig)	498	-	-	498
Revalued amounts	1,500	520	120	2,140

Note:
Depreciation for the year
Buildings: (1,200 – 300)/50 years = 18
Plant & machinery: (750 – 100) x 20% = 130
Right of Use (ROU) Asset: 150/5 years = 30

(2) **Investment property**

	K'000
Fair value at 1 January 2023	350
Fair value gain (balancing figure)	30
Fair value at 31 December 2023	380

(3) **Lease Liability**

Year	Opening balance	Interest rate @10%	Lease payments	Closing balance
	K'000	K'000	K'000	K'000
2023	150	15	(40)	125
2024	125	12.5	(40)	97.5

A lease liability of K125,000 at 31 December 2023 should be split into non-current liability and current liability in accordance with the Conceptual Framework.

Non-current Liability	K97,500
Current Liability (125,000 – 97,500)	K27,500

(4) Income tax expense

	K'000	K'000
Provision for the year		85
Overprovision for previous year		(70)
Movement in deferred tax:		
Decrease in deferred tax asset	150	
Increase in deferred tax liability (350 x 30%)	105	
		255
Income tax expense		270

(5) Bonus issue of shares:

Existing shares: (250,000/K1) = 250,000 shares

New shares 250,000/5 X 2 shares = 100,000 shares

New shares value (100,000 shares x K1) = K100,000

Double entry:
Dr share premium K100,000
Cr share capital K100,000

(6) Cost of sales

	K'000
As per trial balance	840
Depreciation for the year on:	
Plant & machinery (W1)	130
ROU Assets (W1)	30
	1,000

SOLUTION THREE

(a) Ratios for Jerusha

(i) Meaning of the ratios

Gross profit margin = $\frac{\text{Gross Profit}}{\text{Sales}} \times 100$

This ratio indicates the proportion of or size of trading profit in relation to the sales made in the period. When the ratio is high, it indicates that the entity is purchasing goods for re-sell at lower prices, and vice versa. It also indicates the result of growing demand in the goods traded in.

Operating (net) profit margin = $\frac{\text{Profit before interest and tax}}{\text{Sales}} \times 100$

This ratio indicates the size of operating profit in relation to the sales made in the period. When the ratio is high, it indicates that the entity is reasonably controlling administrative and selling costs. It also gives confidence to the managers that they are managing the business profitably and will contribute to the return on investment that shareholders expect.

Asset Turnover = $\frac{\text{Sales}}{\text{Total Assets – current liabilities}}$

This ratio indicates the amount of sales each kwacha of assets is generating. When the ratio is high then assets are being utilized to the best degree possible.

Return on Capital Employed = $\frac{\text{Profit before interest and tax}}{\text{Capital Employed}} \times 100$

The capital employed is the sum of equity capital and borrowed capital, if any. The ratio indicated the proportion of profit made in relation to the capital injected in the business. The higher the ratio, the more satisfying it is to owners of capital that their investment is worth holding in the business. When this ratio drops, the investors may choose to withdraw their capital from the business.

(ii) Comments on ratios

(i) The gross profit margin (24.8 and 24.3) for Jerusha is almost the same as the industry average. This indicates that Jerusha obtains the product from the same source as other competitors in the sector and sells also to the same customers at the same prices. A wrong choice of inventory valuation policy can lead to understatement or overstatement of inventory, and this would affect the amount of cost of sales and eventual gross profit calculated.

(ii) On the other hand, Jerusha has a higher operating profit percentage (12% and 7%) than the industry average. This indicates that Jerusha controls operating costs better than competitors in the same industry. The ratio would be incorrect and misleading if Jerusha under pays employees, for example, due to not compliance with labour laws.

(iii) Jerusha's <u>asset turnover</u> is better than the industry average (5 times and 3 times). This indicates that Jerusha is utilizing assets more and better than its competitors in the industry sector. The ratio may be incorrect if assets are reported at wrong carrying amounts, for example, if the depreciation policy results in overstating profits.

(iv) The <u>Return on Capital Employed</u> for Jerusha is more than double the industry average. This indicates that shareholders must be happy that they are getting a huge return or gain on the invested capital compared to what investors in other companies are getting. The ratio may be misleading if some liabilities were not recognized and are off-balance sheet.

(b) Earnings per share

(i) Basic Earnings per share is the amount of an entity's profit (earnings) after tax that is attributable to each equity share outstanding during an accounting period. The EPS measures the entity's profitability on the per share basis when a company has no convertible securities in issue.
It can among other factors contribute to the rise or the fall in the share price of the entity, thereby either attracting investors to the company or deterring them from subscribing for the shares.

The basic EPS may be limited under the following circumstances:
(1) Where a company has in issue convertible securities in issue and when the entity made a bonus issue and/or rights issue.
(2) Where a company made a one off profit or loss during an accounting period. For example profit or loss on disposal of non-current assets.

In this case calculation of Diluted EPS may be more informative.

(ii) Calculation of EPS
The earning for purposes of calculating earnings per share is:
K 20 000 + K 5 000 = K 25 000

The number of shares K 300 000 / K 1.50 = 200 000 shares

Earnings per share = <u>25 000 x 100</u> = 12.5 Ngwee200 000

(iii) Price earnings ratio = Market Price / EPS
= 450 Ngwee / 12.50 Ngwee
= <u>36</u>

(iv) The earnings per share for the industry is 18 Ngwee, whereas that for Jerusha is 12.5 Ngwee. The actions that can be taken to improve eps are:
i) To increase the volume of the product sold through market development.
ii) To reduce costs further so that the increased sales coupled with reduced costs will increase the profit to be made.

The price earnings ratio can be improved on by publicizing the company's investment plans which are attractive and the plans will create demand for the shares. As a consequence, the share price will increase, and the P/E ratio will increase as well.

SOLUTION FOUR

(a) Explanation of the accounting treatment of convertible bonds

A convertible debt is an example of compound financial instruments. IAS 32 defines a compound financial instrument as a financial instrument with characteristics for both financial liability and equity instrument.

As per IAS 32 requirements, a compound financial instrument should be split into financial liability and equity, at inception, and be presented separately in the financial statements.

Therefore, Matyola should split its convertible bonds into financial liability and equity instrument. A financial liability is initially measured as the present value of the future cash flows of the bonds discounted at an effective interest rate (interest rate applicable to similar instruments without conversion rights) which is 12%.

On initial recognition, the convertible bonds will be split and measured as follows:

Year	Cash flows	Discount factors @12%	Discounted cash flows
	K		K
1 – interest payments (150,000 x 8%)	12,000	0.893	10,716
2 – interest	12,000	0.797	9,564
3 – redemption + interest	162,000	0.712	115,344
Financial liability			135,624

Equity instrument is calculated as the difference between proceeds of issue and the financial liability. The equity instrument at 1 April 2023 will be:

	K
Proceeds of issue	150,000
Financial liability	(135,624)
Equity instrument	14,376

Subsequently, a financial liability is measured at amortised cost as follows:

	K
Liability at 1 April 2023	135,624
Effective interest at 12%	16,274.88
Interest paid (150,000 x 8%)	(12,000)
Liability at 31 March 2024	139,898.88

Matyola will, therefore, recognise the following amounts in its financial statements for the year ended 31 March 2024:

Statement of profit or loss	K
Finance costs	16,274.88

Statement of financial position

Equity

Equity instrument	14,376
Non-current Liabilities	
8% Convertible bonds	139,898.88

(b) Impairment of Assets

(i) IAS 36 defines impairment of assets as the reduction in the recoverable amount of an asset or a cash generating unit (CGU) below its carrying amount. Recoverable amount is whichever is higher between the fair value less costs to sell and the value in use. An asset whose recoverable amount is below its carrying amount is said to have suffered impairment.

(ii) External factors:

1. Significant fall in market value of shares
2. Significant adverse changes in technology, legal, political, and/or economic environment.
3. Increase in external market interest rates
4. The value of net assets is greater than market capitalization of shares

Internal factors

(1) Obsolescence and physical damage to assets
(2) Poor economic performance of an asset for example continuous break downs.
(3) Performance of non-current assets is worse than was expected for example reduction in the production capacity of an asset

A factor is adverse if it results in loss in demand of a product on the market, change in technology, etc.

(iii) IAS 36 provides guidance on the allocation of impairment, starting with the directly affected assets, then goodwill and the balance is shared proportionately between the remaining assets (on pro rata to the carrying amounts), excluding current assets that are already at their recoverable amounts:

Allocating the impairment loss of K 200 000 – K 100 000 = K100 000

	Carrying amounts K'000	Allocated impairment loss K'000	Recoverable amount K'000
Goodwill	30	(30)	-
Intangible assets	60	(15)	45
Land and buildings	50	(32)	18
Plant and equipment	35	(23)	12
Inventory	15	-	15
Other current assets	10	-	10
	200	100	100

Calculations

Land and Buildings $\frac{50 \times 55}{85} = 32$

Plant and Machinery $\frac{35 \times 55}{85} = 23$

SOLUTION FIVE

(a) Creative accounting is a term in general used to describe the practice of applying inappropriate accounting policies or entering complex or 'special purpose' transactions with the objective of making a company's financial statements appear to disclose a more favourable position, particularly in relation to the calculation of certain 'key' ratios, than would otherwise be the case. Most commentators believe creative accounting is more or less like deliberate fraud and is undesirable as it is intended to mislead users of financial statements.

Probably the most criticized area of creative accounting relates to off balance sheet financing. This occurs where a company has financial obligations that are not recorded on its statement of financial position. There have been several examples of this in the past:

(1) Normal lease accounted for as simplified lease in lessor's books.

(2) Borrowings (usually convertible loan stock) being classified as equity

(3) Secured loans being treated as 'revenue' (sale and repurchase agreements)

(4) Offsetting liabilities against assets (certain types of accounts receivable factoring)

The other main area of creative accounting is that of increasing or smoothing profits.

Examples of this are:

(1) the use of inappropriate provisions (this reduces profit in good years and increases them in poor years)

(2) Not providing for liabilities, either at all or not in full, as they arise. This is often related to environmental provisions, decommissioning costs and constructive obligations.

(3) Restructuring costs not being recognized in profit or loss (often related to a newly acquired subsidiary – the costs are effectively added to goodwill).

Management can manipulate financial statements to indulge in 'creative accounting' in several ways.

In the statement of profit or loss there are generally two aspects to profit manipulation or creative accounting; that of inflating profits, and that of profit smoothing.

Inflating profit involves, for example, management attempting to avoid certain costs from passing through the statement of profit or loss. Reserve accounting for losses is a good example of this. Another example is treating future reorganisation costs relating to an acquisition as a reduction of the acquired entity's net assets, i.e. a liability at the date of acquisition.

Profit smoothing is connected to the timing of revenue recognition. Some examples of profit smoothing are regarded as acceptable. For example, recognising stage profits in relation to *IFRS 15 Revenue From Contracts with customers* is common practice, whereas other methods such as 'selling' and later re-purchasing maturing inventories are generally considered undesirable.

In the statement of financial position creative accounting has mainly been used to improve 'key' reported ratios such as financial gearing and liquidity ratios.

It is important to stress that, such accounting policies and practices are not illegal and must be distinguished from fraud. Deliberately overvaluing closing inventories would improve profits and liquidity, but this would be fraud, not creative accounting. Although creative accounting may not be illegal, it generally prevents the financial statements of an entity from showing a 'true and fair view' or 'presenting fairly the financial position'.

Creative accounting has also been used to describe less innapropriate practices. The modern world has many new and complex financial transactions for which existing accounting standards may not be appropriate because such transactions did not exist when the statements were produced. As a company's management has to account for these complex transactions it has to 'create' an accounting policy.

There are various explanations of why management may participate in manipulating financial statements. Perhaps the most obvious is that of self-interest: management may be remunerated (partly) in the form of a bonus based on the level of profit. Other reasons may be that creative accounting can, in the short term, increase the market price of a company's shares, again with obvious benefits. A company with high statement of financial position gearing will find further borrowing difficult and expensive. In extreme cases high gearing may breach debt covenants. It is therefore beneficial to the company and its shareholders to reduce reported gearing in these circumstances.

(b) Criticism of historic cost accounting include:

(i) Leads to understatement of assets in the statement of financial position.

(ii) Due to understatement of assets, depreciation will also be understated and hence profits overstated.

(iii) In times of rising inventory prices, and when FIFO method is in use, the cheap inventory is charged to cost of sales and most expensive excluded from COS for statement of financial position. COS understated, profit overstated and SFP assets overstated.

(iv) If organization operates in inflationary markets, its revenue and profits rise, but just 'on paper'. This is due to distortion arising from understatement of depreciation and cost of sales.

(v) Despite the above criticisms, historical cost accounting has some benefits as follows:

(vi) Easy to understand

(vii) Amounts used are objective and free from bias

(viii) Amounts are reliable as they can always be verified (exist on invoices and other documents).

(ix) Amounts in the statement of financial position can be matched perfectly with those in the statement of cash flows.

(x) Historical cost financial statements do not record gains until they are realized.

(xi) Opportunities for creative accounting are less

END OF SUGGESTED SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA APPLICATION ADVANCED DIPLOMA IN ACCOUNTANCY

CA 2.2: MANAGEMENT ACCOUNTING

TUESDAY 10 JUNE 2025

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)

(a) BMK has three (3) product lines, namely, P1, P2 and P3. Since its inception, the company has used a single direct labour cost percentage to assign overhead costs to products. Despite P3 being a relatively new product line, it is attracting additional business. However, increasing overhead costs have resulted into losses in recent times. Product P2, in particular, has been a major product line since its inception. However, it has lost considerable market share due to increased overhead costs and the consequent increase in the price per unit. Management is, therefore, convinced that the costing system needs some review.

A team led by the Management Accountant was put together to develop an improved system of costing based on activities. The team spent several weeks collecting data for the different activities and products.

Below is data for BMK's three product lines and overhead costs for the current accounting period:

	P1	**P2**	**P3**
Production volume (units)	7,500	12,500	4,000
Selling price per unit (K)	47	80	68
Material cost per unit (K)	18	25	16
Direct labour cost per unit (K)	4	8	6.4
Materials movements (in total)	4	25	50
Machine hours per unit	0.5	0.5	0.2
Set-ups (in total)	1	5	10
The proportion of engineering work	30%	20%	50%
Orders packed (in total)	1	7	22

Overhead cost activities:	**K**
Machine maintenance and depreciation	390,000
Material receiving and handling	150,000
Engineering	100,000
Packing	60,000
Set-up labour	18,688
Total	718,688

Required:

Calculate the product cost per unit for products P1, P2 and P3 using the Activity Based Costing (ABC) system. (16 marks)

(b) Morden Ltd produces chairs for schools and churches in Luanshya. The information below relates to sales and profit figures for the years 2022 to 2024.

Years	Quantities	Sales (K)	Profit (K)
2022	1,500	350,000	70,000
2023	1,700	487,000	60,000
2024	3,000	699,990	209,990

Required:

Using the above information provided, compute the following:

(i) Variable cost per unit. (3 marks)

(ii) Total variable cost for production of 3,000 chairs. (3 marks)

(iii) The total fixed costs. (4 marks)

(c) The statement below shows the summary of overheads that have been apportioned to the four (4) departments of Kabwe Ltd as well as some additional information.

Department	1	2	3	4
Total overheads (K)	45,000	35,000	20,000	40,000
Labour hours	1,200	1,000	800	1,500
Units produced	8,000	6,000	4,000	7,000
Machine hours	2,500	3,000	1,800	4,000
Prime cost per unit (K)	42	25	30	34

Required:

(i) Calculate three (3) possible plant-wide (blanket) overhead absorption rates.

(6 marks)

(ii) Calculate two (2) possible overhead absorption rates for Department 1.
(4 marks)

(iii) Explain under and over absorbed overheads. (4 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt any THREE (3) questions.

QUESTION TWO

LMN enterprises is a clothing company which has been operating for twenty years. After analysing its financial results over time, the company has focused production on three main items, namely, trousers, skirts and school uniforms. The company has recently received orders from new customers because of the high quality of its products. Although the production director is happy with the new orders, he is concerned about the company's capacity to produce the items required. Details extracted from the company's budgeted management accounts and other relevant information are shown below:

1. Product information (per unit):

	Trousers	Skirts	School uniforms
	K	K	K
Selling price	140	265	120
Materials	50	75	40
Labour	30	45	15

2. Total budgeted production overheads for the year are expected to be K21,125,000. Twenty percent (20%) of all production overheads are variable and are allocated to products on the basis of labour hours. Fixed production overheads are considered to be period costs.

3. Budgeted annual demand for the three products, including the new orders received is as follows:

Trousers	1,225,000 units
Skirts	604,000 units
School uniforms	1,000,000 units

4. The company has budgeted to pay its workers a fixed rate of K120 per hour and has included 650,000 labour hours for the year in its budget.

Required:

(a) Prepare calculations to show whether LMN enterprise will have sufficient production capacity to meet budgeted demand for its products.

(6 marks)

(b) Compute the optimal production plan for LMN enterprise and show the annual profit expected.

(10 marks)

(c) Explain the following terms, providing examples to illustrate your answer:

(i) Sunk cost. (2 marks)

(ii) Opportunity cost. (2 marks)

[Total: 20 Marks]

QUESTION THREE

Motor Parts Plc (MP Plc) markets a range of vehicle service packs for motoring enthusiasts. The products are sold on a franchise basis from selected garages and petrol stations. The company is planning to introduce a new pack onto the market called a rear window demister kit. However, it is uncertain which alternative to use to promote the demister kit. MP Plc can either pay a commission on each sale or increase salaries paid to sales staff. Data for the demister kit is:

Selling price	K25
Cost of auto parts from the manufacturer	14
Fixed costs of MP Plc directly attributable to the de-mister	85,056

The fixed costs include the salaries of sales staff.

Commission on each sale would be K1.40 per pack. Increased salaries to sales staff would cost an extra K14,989. Budgeted sales for the year are 11,000 packs.

Required:

(a) (i) Calculate the break-even point if commission is paid. (4 marks)

(ii) Calculate the break-even point if staff salaries are increased. (4 marks)

(iii) Calculate the margin of safety (in packs and percentage) for the two (2) alternatives. (3 marks)

(iv) Comment to MP Plc on their decision. (3 marks)

(b) Discuss the assumptions which underpin break-even analysis and limit its use as a management tool.

(4 marks)

(c) State two (2) differences between Financial Accounting and Management Accounting.

(2 marks)

[Total: 20 marks]

QUESTION FOUR

(a) Explain the following:

(i) Incremental Budgeting. (2 marks)

(iii) Zero Based Budgeting. (2 marks)

(iii) Activity Based Budgeting. (2 marks)

(b) Brenda Mutaba Ltd is a manufacturing company that produces a body shaping drink for the African market.
The company employs marginal costing system as an integral part of its reporting systems. During the reporting period there was no opening or closing inventory. The company produces its budgeted and actual results for December, 2024, as follows:

	Budget	**Actual**
Production/sales units	2,000	1,400
	K	K
Sales	60,000	42,400
Variable cost:		
Direct material	(20,000)	(13,200)
Direct labour	(10,000)	(7,600)
Variable overhead	(6,000)	(4,400)
Contribution	**24,000**	**17,200**
Fixed costs	(20,000)	(20,800)
Net profit/loss	**4,000**	**(3,600)**

Required:

Prepare a budgetary control statement (which includes a flexible budget) that will be useful for management cost control purposes and briefly comment on the company's performance in December, 2024. (14 marks)

[Total: 20 Marks]

QUESTION FIVE

Rabecca Bakery Ltd makes and sells whole wheat bread. The following is the production and sales data for the two (2) months, June and July 2024:

Budgeted cost information for each month

Standard cost data:

Direct materials (flour): 700 grams @ K25 per kilo gram.
Direct labour: 30 minutes @ K8.25 per hour
Variable production overheads: 30 minutes @ K5.15 per hour

Actual cost information for each month

Fixed production overheads: K17,250
Each unit sells at K30

	June	July
Sales in units (actual)	12,050	10,000
Production in units (actual)	11,000	6,900

The opening inventory as at 1 June 2024 was 4,150 units. Fixed production overheads are budgeted at K216,000 per annum and are absorbed into products based on budgeted normal output of 108,000 units per annum.

Required:

(a) Prepare a profit statement for each of the two (2) months using absorption costing principles. (8 marks)

(b) Prepare a profit statement for each of the two (2) months using marginal costing principles. (6 marks)

(c) Chungu Chikoyi Ltd manufactures Omicron vaccine for the treatment of COVID 19 in Africa. The manufacturing process uses two (2) raw materials (M and W) which are mixed in the proportions (2:3). Materials are priced:

M	K10 per kg
W	K3.2 per kg

Normal weight loss of 5% of material input is expected during the process and material losses recorded in the manufacturing process have no saleable value. At the end of production, 18,260 kg of Omicron vaccine were manufactured from 19,320kg of raw materials.

Conversion costs in the period were K57,316. There was no work in process at the beginning or end of the period.

Required:
Prepare the process account of the Omicron vaccine for the period.

(6 marks)

[Total: 20 Marks]

END OF PAPER

CA 2.2: MANAGEMENT ACCOUNTING – SUGGESTED SOLUTIONS

SOLUTION ONE

(a) Production Costs Per Unit

	P1	**P2**	**P3**
	K	K	K
Direct materials	18.00	25.00	16.00
Direct labour	4.00	8.00	6.40
Prime cost	22.00	33.00	22.40
Overhead cost:			
Receiving/materials handling(w.1)	1.01	3.80	23.73
Maintenance and depreciation (w.2)	18.06	18.06	7.22
Set- up labour (w.3)	0.16	0.47	2.92
Engineering(w.4)	4.00	1.60	12.50
Packing(w.5)	0.27	1.12	11.00
Sub- total overhead costs	23.50	25.05	57.37
Total unit cost	**45.50**	**58.05**	**79.77**

ABC

Workings:

W1: Receiving and handling materials cost

Total cost = K150,000

Number of material movement = 4 + 25 + 50 = 79 movements

Cost per movement = K150,000/ 79 = K1,898.73

Cost per unit of P1 = (K1,898.73 X 4) /7,500 = K1.01 per unit

Cost per unit of P2 = (K1,898.73 x 25)/12,500 = K3.80 per unit

Cost per unit of P3 = (K1,898.73 x 50) /4,000 = K23.73 per unit

W2: Maintenance and depreciation cost

Total cost = K390,000

Number of maintenance hours = (0.5 x 7,500) + (0.5 x 12500) + (0.2 x 4,000) = 10,800

Cost per machine hour = K390,000/10,800 = K36.11 per machine hour

Cost per unit of P1 = K36.11 X 0.5 = K18.06 per unit

Cost per unit of P2 = K36.11 X 0.5 = K18.06 per unit

Cost per unit of P3 = K36.11 x 0.2 = K7.22 per unit

W3: Set-up labour cost

Total cost = K18,688

Number of set-ups = 1 +5 + 10 = 16

Cost per set -up = K18,688/16 = K1,168 per set-up

Cost per unit of P1 = (K1,168 x 1) /7,500 = K0.16 per unit

Cost per unit of P2 =(K1,168 x 5) / 12,500 = K0.47 per unit

Cost per unit of P3 = (K1,168 x 10) /4,000 = K2.92 per unit

W4: Engineering cost

Total cost =K100,000

Cost per unit of P1 = (K100,000 X 30%) / 7,500 = K4.00 per unit

Cot per unit of P2 = (K100,000 x 20%) /12,500 = K1.60 per unit

Cost per unit p3 = (K100,000 X 50%) /4,000 = K12.50 per unit

W5: Packing costs

Total cost = K60,000

Cost driver = Number of orders

Number of orders packed = 1 + 7 + 22 = 30

Cost per order = K60,000/30 =K2,000

Cost per unit of P1 = (k2,000 x 1) /7,500 = K0.27 per unit

Cost per unit of p2 = (K2,000 X7)/12,500 = K1.12 per unit

Cost per unit of P3 = (K2,000 x 22) /4,000 = K11.00 per unit

(b)

Years	Quantities	Sales (K)	Profit (K)	Total cost
2022	1,500	350,000	70,000	280,000
2023	1,700	487,000	60,000	427,000
2024	3,000	699,990	209,990	490,000

(i) Variable cost per unit

$$\text{variable cost per unit} = \frac{K490{,}000 - K280{,}000}{3{,}000 - 1{,}500}$$

$$= \frac{K210{,}000}{1{,}500}$$

$$= \mathbf{K140}$$

(ii) Total variable cost

Variable cost = K140 X 3,000

= **K420,000**

(iii) Total fixed cost

Total fixe cost = Total costs - variable costs

= K490,000 - K420,000

= **K70,000**

(c)

(i) Overhead absorption rate (OAR) computations:

Total overheads	K140,000
Total labour hours	4,500
Units produced	25,000
Total machine hours	11,300
Prime cost	K844,000

OAR	
Labour hour	K140,000/4,500 = K31.1 per hour
Unit produced	K140,000 /25,000 = K5.6 per unit
Machine hour	K140,000/11,300 = K12.39 per machine hour
Prime cost	K140,000/K844,000 = 0.17 times or 17% of prime cost

(ii) Rates for department 1

OAR	
Labour hour	K45,000 / 1,200 = K37.5 per labour hour
Unit produced	K45,000/8,000 =K5.625 per unit
Machine hour	K45,000/2,500 = K18 per machine hour
Prime cost	K45,000/K336,000 = 0.134 or 13.4%

(iii) Under and over absorbed overheads

(i) under absorbed overheads occurs where the overhead charged to the actual work is less than the actual overhead incurred.

(ii) Over absorbed overhead occurs where the overhead charged to actual work is more than actual overhead incurred.

SOLUTION TWO

(a) Calculations to show if sufficient capacity to meet demand

	Sales demand	Labour hours required per unit (W1)	Total labour hours required
Trousers	1,225,000	0.25	306,250
Skirt	604,000	0.375	226,500
School uniform	1,000,000	0.125	125,000
Total hours required			657,750
Total hours available			650,000
Shortfall of hours			7,750

The company does not have enough budgeted labour hours to meet budgeted sales demand.

(b) Compute the optimal production plan and show the total annual profit expected

Calculate the contribution per unit of limiting factor
Limiting factor = labour hours

	Trousers	Skirt	School uniform
Selling price per unit(K)	140	265	120
Less: variable cost per unit			
Direct material(K)	50	75	40
Direct labour(K)	30	45	15
Variable overhead @ K6.5 per lab hr (W2)(K)	1.65	2.4375	0.8125
Total variable cost per unit(K)	81.65	122.4375	55.8125
Contribution per unit(K)	58.35	142.5625	64.1875
Labour hours per unit	0.25	0.375	0.125
Contribution per labour hour(K)	233.4	380.17	513.5
Rank	3rd	2nd	1st

Optimal production plan

Product	Contribution per unit (K)	Production in units	Total labour hours required	Contribution (K)
School uniform	64.1875	1,000,000	125,000	64,187,500
Skirt	142.5625	604,000	226,500	86,107,750
Trousers	58.35	1,194,000	298,500	69,669,900
Total contribution				219,965,150
Less fixed production overheads (W2)				(16,900,000)
Profit				**203,065,150**

Workings:

W1: Labour hours per unit

	Trousers	Skirt	School uniform
Labour cost per unit	30	45	15
Labour cost per hour	120	120	120
Labour hours per unit	0.25	0.375	0.125

W2: Analysis of budgeted production overhead

	K
Total budgeted production overhead for the year	21,125,000
Less: budgeted fixed production overhead – 80% of total	16,900,000
Budgeted variable production overhead	4,225,000
	÷
Total budgeted labour hours	650,000
Budgeted variable overhead per labour hour	K6.50

(c) Briefly explain the following terms, providing examples to illustrate your answer

(i) Sunk cost

This is a past or committed cost. It is a cost that has been created by a decision made in the past and cannot be changed by any decision made in the future.

For example: if a company arranges for market research to be conducted to assess if is worthwhile to produce a product or not. The market research cost is a sunk cost as a commitment has been made and it must be paid whether or not the company produces the product.

(ii) Opportunity cost

Where an organisation has a number of possible courses of action/options, opportunity cost represents the cost of the benefit that is lost/sacrificed when the choice of one course of action requires that the next best course of action is given up.

For example: if a company uses a material in production that has no other use but does have a scrap value of K5 per unit, the opportunity cost is K5. This arises because by using the material the company is losing out on the money that it could have earned by selling it for scrap.

SOLUTION THREE

(a)

(i) Break-Even Point if commission is paid.

	K
Selling price	25.00
Variable cost	(14.00)
Gross Contribution	11.00
Commission	(1.40)
Net contribution	9.60

Break-even point= TFC/ contribution per unit = K85, 056 /K 9.60/unit = 8,860 packs.

(ii) Break-Even Point if staff salaries are increased

	K
Fixed Cost	85,056
Extra Salary	14,989
Total FC	100,045
	÷
Contribution per unit(a)(i)	K11

B.E.P = 9,095 packs

(iii) Margin of Safety Under Two Alternatives

(1) Commission alternative: 11,000- 8,860 = 2,140

1,240/11,000 x 100/1= 19.45%

(2) Salary alternative: 11,000 – 9,095 = 1,905

1,905/ 11 x 100/1 =17.3%

(iv) Profit on the budgeted sales

(i) With Commission : 11,000 x K9.60 – K85, 056 = K20,544

(ii) With Salary: 11,000 x K11 – K100,045= K20,955

Advice

The salary alternative is to be preferred because it makes a greater profit at budgeted volume. However, if budgeted volumes are not achieved, the commission basis is the best since it has a lower break – even point and greater MOS.

(b) Assumptions and limitations.

1. Linearity of cost and revenues across the volume range. Some costs may be curvilinear.
2. Sales oriented – ignores inventory changes
3. Assumes a relevant range. Unreal at extreme limits of volume range .
4. Cost behaviour static across volume range – Stepped costs are possible.
5. Costs easily identifiable as fixed or variable – not so true
6. Applies to a single product or constant mix. What about multiple products?

(c) TWO differences between financial accounting and management accounting.

	Financial Accounting	Management Accounting
1	Used for external reporting	Used for internal reporting
2	Presentation format regulated by statute law and accounting standards	Format not regulated by law
3	Based on historic costs/revenues	Based on past and future costs
4	Limited companies required by law to prepare financial statements	Not required by law to be prepared.
5	Of monetary nature	Of monetary and non-monetary nature

SOLUTION FOUR

(a)

(i) Incremental budgeting

This is the system of budgeting where the previous period or year's budget is used as basis for preparing the current periods' budget by making incremental adjustments as may be influenced by factors such as inflation, expansion needs and growth. It is simple to apply in practice because you need not develop a decision package and to justify the inclusion of the cost of an item into the budget. The budget perpetuates past inefficiencies and does not lead to the optimal and efficient allocation of budgetary resources.

(ii) Zero based Budget

This is a process of budgeting whereby all activities contained in the budget are re-evaluated each time the budget is being prepared. Every item of expenditure must be justified in its entirety in order to be included in the next year's budget. The budget preparation process adds a psychological impetus to employees to avoiding wasteful expenditure. It creates extra paperwork as the process of preparing the decision packages under the ZBB are repetitive and can be cumbersome.

(iii) Activity based budgeting

This is a method of budgeting based on activity framework and utilization of a cost driver data in the budget setting and variance feedback process. It involves defining activities that drive cost and using the level of activity to decide how much resources should be allocated and to determine how well an activity is being managed and to explain variances from budget. The process of preparing budgets using ABB helps managers to identify the cost of an activity and facilitating cost reduction. Sometimes, it can be difficult to trace objectively the cost of an activity to a product.

(b) Brenda Mutaba limited

Cost card	K/unit
Selling price (K60,000/2,000 units)	30
Direct material (K20,000/2,000 units)	10
Direct labour (K10,000/2,000 units)	5
Variable overhead (K6,000/2,000 units)	3
Budgeted production cost per unit	18

Flexible budget for the month of December, 2022

Areas of performance

Production/sales units	**Fixed budget** 2,000	**Flexible budget** 1,400	**Actual results** 1,400	**Variance**
	K	K	K	K
Sales (30 x 2,000)	60,000	42,000	42,400	400 (F)
Direct material	20,000	14,000	13,200	800 (F)
Direct Labour	10,000	7,000	7,600	600 (A)
Variable overhead	6,000	4,200	4,400	200 (A)
Total variable cost	(36,000)	(25,200)	(25,200)	0.00
Contribution	24,000	16,800	17,200	400 (F)
Fixed cost	(20,000)	(20,000)	(20,800)	800 (A)
Net profit or Loss	**4,000**	**(3,200)**	**3,600**	**400 (A)**

Commentary:

Sales variance was K400 (F). This means that budgeted selling price is K30 and actual selling price is (K42,400/1,400 units) K30.285. The overall performance is K400 worse than budgeted. That is, the flexible budget profit is K3,200 compared with actual loss of K3,600. Control of direct material cost has been very good as this has been K800 better than expected. Direct labour cost is overspent as does overhead by K600 and K200, respectively.

SOLUTION FIVE

(a) Profit Statement Using Absorption Costing

	June		July	
	K	K	K	K
Sales (12,050/10,000)@30		361,500		300,000
Less cost of sales				
Opening inventory(4,150/3,10)@K26.20	108,730		81,220	
Add production (11,000/6,900)@K26.20	288,200		180,780	
Closing inventory(3,100 @K26.20)	(81,220)		-	
Adjustment : (over)/under absorption(W2)	(4,750)		3,450	
		(310,960)		(265,450)
Net profit		**50,540**		**34,550**

Working

1. OAR = Budgeted overheads/budgeted output = K216,000/108,000 units = K2/unit

2. Over/under absorption

   June
   Overhead absorbed: K2 /unit x 11,000 = K22,000
   Overhead incurred: = K17,250
   Over absorbed = K4,750

   July
   Overhead absorbed: K2 /unit x 6,900 = K13,800
   Overhead incurred: = K17,250
   Under absorbed = K3,450

(b) Profit Statement Using Marginal Costing

	June		July	
	K	K	K	K
Sales (12,050/10,000)@K30		361,500		300,000
Less cost of sales				
Opening inventory(4,150/3,100)@K24.20	100,430		75,020	
Add production (11,000/6,900)@K24.20	266,200		166,980	
Closing inventory(3,100 @K24.20)	(75,020)		-	
		(291,610)		(242,000)
Contribution		69,890		58,000
Less fixed costs		(17,250)		(17,250)
Net profit		52,640		40,750

(c)

*18,354 kg represent the equivalent units

Cost per unit = K171,690 / 18,354 Kg

= K9.3544 per kg

Process account

	Kg	value		Kg	value
Material M	7,728	77,280	Output	18,260	170,811
W	11,592	37,094	Normal loss	966	0
Conversion cost	-	57,316	Abnormal loss	94	879
	19,320	171,690		19,320	171,690

END OF SUGGESTED SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA APPLICATION ADVANCED DIPLOMA IN ACCOUNTANCY

CA 2.3: AUDITING PRINCIPLES AND PRACTICE

THURSDAY 12 JUNE 2025

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.

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

You are Audit Manager of Tamba and Co (Tamba) and are planning the audit of Zuba Co (Zuba) for the year ending 30 June 2024. Zuba develops and manufactures medical products and has been a client of your firm for five (5) years. You held meetings with the Finance Director of Zuba where the matters below were discussed:

Planning meeting notes

During the year under review, Zuba spent K10 million on research and development of new products. This amount is included within the intangible assets figure of the draft accounts. Additionally, Zuba purchased new equipment during the year and all costs incurred have been capitalised. The capitalised costs include the purchase price of K25 million and a four (4) year repairs and maintenance agreement costing K2 million. To finance purchase of the new equipment, the company borrowed K15 million from the bank. This loan is to be repaid in instalments over five (5) years at an annual interest rate of 20%.

Zuba has a refund policy for payments in advance which allows customers to claim a refund within sixty (60) days from the date of sale if the product is faulty. Payments in advance of K130 million had been received for the month ending June 2024 and the Finance Director intends to include a refund provision of K3 million in the draft financial statements.

The Finance Director has informed you that the May and June 2024 bank reconciliations each contained unreconciled differences; however, he considers the overall differences involved to be immaterial.

A Directors' bonus scheme based on achieving a target profit before tax of K500 million was introduced during the year. To finalise the bonus figures, the Finance Director would like the audit to be completed earlier this year so that the audited and approved financial statements could be presented to the Board soonest. You informed the Finance Director that the audit team would need adequate time to ensure that a quality audit is conducted

Zuba's payroll system notes

Permanent employees work a standard number of hours per week as specified in their employment contracts. Employees can be requested by management to work additional hours as overtime, which is paid monthly.

Employees record any overtime worked on weekly overtime sheets which are sent to the payroll department. The standard hours per employee are automatically set up in the system and the overtime hours are entered by the Payroll Accountant into the payroll system, which automatically calculates the gross and net pay along with relevant deductions. These calculations are not checked at all since the payroll system is very robust and reliable. Wages are increased by the rate of inflation each year and the payroll officers are responsible for updating the standing data in the payroll system.

Employees are paid monthly by bank transfer for their contracted weekly hours and if the overtime is more than fifty (50) hours, authorisation is required by departmental heads. If the overtime is fifty (50) hours or less, the Payroll Accountant agrees back to the 'overtime worked' report; however, this report is not independently checked.

The 'overtime worked' report is prepared and run by the payroll department weekly and monthly and sent to the departmental heads. The payroll department asks departmental heads to report back only if there are any errors recorded in the report. When departmental heads are away on annual leave, overtime sheets are authorised by the Payroll Accountant.

The Finance Director reviews the total list of bank transfers and compares this to the total amount to be paid per the payroll records before the payroll is loaded on the On-Line Banking Platform by the payroll department.

However, for the casual workers, the pay packets are given to their supervisors to distribute. If any casual workers are absent on pay day, the supervisor keeps the wage packets and returns them to the payroll department after one (1) week.

Required:

(a) (i) Explain the difference between audit strategy and audit plan. (2 marks)

(ii) Explain four (4) reasons why audit documentation is important (4 marks)

(b) Identify and explain six (6) audit risks and explain the auditor's response to each audit risk in planning the audit of Zuba Co. (12 marks)

(c) Describe five (5) substantive audit procedures the auditors should perform at the year-end in relation to new equipment purchased. (5 marks)

(d) Identify and explain six (6) internal control weaknesses in the payroll system of Zuba; and suggest a recommendation to address each weakness. (12 marks)

(e) Describe five (5) substantive audit procedures the auditor should perform in relation to payroll expenses. (5 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 Senior in Bwino and Associates (Bwino) and have been allocated to the audit of Wanga Co (Wanga), a listed company which produces soft drinks. Wanga has been your audit client for ten (10) years. You have been given the information below.

The Engagement Partner who has completed seven (7) years as the audit Engagement Partner for the audit of Wanga and has recently been rotated off the audit engagement will take the role of a Review Partner this year, due to his audit experience with Wanga.

The Audit Manager assigned to the audit of Wanga has just announced that he is negotiating his employment contract with Wanga and intends to leave the firm to join the company as Finance Manager.

Bwino's Taxation Department also provides services to Wanga and has been approached by Wanga to represent them in negotiations to resolve some outstanding issues with the taxation authority. The Finance Director of Wanga has asked if a senior member of the audit team could be seconded to fill the role of Financial Controller, which is currently vacant. The Finance Director of Wanga has indicated that the duration of secondment will last until the audit firm assists and recruits a Financial Controller on behalf of the company.

The listing rules of the stock exchange require compliance with corporate governance principles, and the directors of Wanga are confident that they are following best practice in relation to this.

Wanga's Board of Directors comprises eight (8) directors; of which five (5) are executive directors and three (3) are non-executive directors. Wanga has an audit committee consisting of Non-Executive Directors. To save costs, the Chief Executive Officer recently took on the role of chairman of the Board. Again, to save costs, no internal audit function has been set up to monitor internal controls.

The Executive Directors' remuneration is proposed by the Finance Director and approved by the Board Chairman. The directors have remained unchanged for many years, and none has been subjected to re-election by shareholders.

Wanga has twenty five (25) warehouses where its inventory is kept, and the audit team members will attend the year end stock count at warehouses holding large inventory quantities. One (1) non-executive director suggested that auditors should detect any fraud committed during the period under audit.

Required:

(a) Identify and explain three (3) ethical matters that may affect the objectivity of the audit team in the audit of the financial statements of Wanga and explain suitable safeguards that should be applied. (6 marks)

(b) Identify three (3) Corporate Governance concerns faced by Wanga and provide recommendations to address each concern. (6 marks)

(c) Describe four (4) audit procedures that should be performed by the auditors during the year-end inventory count. (4 marks)

(d) Explain the external auditors' responsibilities in relation to the prevention and detection fraud and error. (4 marks)

[Total 20 Marks]

QUESTION THREE

Mazabuka Sugar Co (Mazabuka Co) is a manufacturing company and has been operating for over fifty (50) years. The company is owned by several large institutional shareholders; the year end is 30 June 2024.

Mazabuka Co. has experienced significant growth in previous years; however, in the current year, a new competitor has entered the market and because of lower prices has gained considerable market share from Mazabuka Co. Five (5) of Mazabuka Co's large customers have stopped trading with it and have moved their businesses to the competitor. In addition, four (4) of Mazabuka Co's Directors have left the company and joined the competitor. Mazabuka Co. has found it difficult to replace these employees. Mazabuka Co. has just received notification that two (2) main suppliers who provide the company with special raw materials have stopped trading.

Mazabuka Co. is looking to develop new products to differentiate itself from its competitors. It has approached its shareholders to finance this development; however, they have declined to invest further in Mazabuka Co. Mazabuka Co. has a long term loan, and it has no money to meet the repayment on time.

The overdraft has increased significantly over the year and the Directors have informed you that the overdraft facility is due for renewal next month, and they are confident it will be renewed. The Directors have produced a cash flow forecast which shows a negative position over the coming twelve (12) months.

At the year end, Mazabuka Co. received notification from one (1) of its customers that the sugar they bought had expired. As a result, the customer lost significant revenue and has informed Mazabuka Co that they have taken legal action against it for loss of earnings.

Management is confident with the new products being developed. Considering the company's trading history of significant growth, directors believe it is unnecessary to make any disclosures in the financial statements regarding going concern uncertainties.

Mazabuka Co's draft financial statements recorded profit before tax of K260 million and total assets of K180 million. You have been given responsibility for auditing receivables, which is a material balance, and as part of the audit approach, the year-end receivables balance in the draft financial statements should be confirmed and verified. You have thus been provided with an age analysis of the receivables balance. The general ledger has a receivables control account. A total of K1.2 million of the receivables balance was written off during the year. An allowance for receivables of K2.5 million was provided for during the year.

Your Audit Junior is not sure about the steps to take in relation to uncorrected misstatements. The property balance was revalued during the year by an independent expert valuer.

Required:

(a) Identify and explain six (6) indicators that Mazabuka Co. may not be a going concern. (6 marks)

(b) Describe five (5) substantive audit procedures the auditor should perform in relation to year-end receivables balance. (5 marks)

(c) Explain four (4) auditor's responsibilities in relation to misstatements observed during the audit. (4 marks)

(d) Explain five (5) factors that should be considered when placing reliance on the work of the independent expert valuer. (5marks)

[Total 20 Marks]

QUESTION FOUR

Zunda and Co. (Zunda) is a firm of Chartered Accountants which has witnessed a steady decline in its revenue over the past few years. In January 2024, Zunda obtained a new audit client, Chesha Co. (Chesha), whose year-end is 30 June 2024.

The Engagement Partner has informed you that in concluding the terms of an audit engagement, the audit firm is required to agree the basis on which the audit is to be carried-out. This involves establishing whether the preconditions for an audit are present and confirming that there is a common understanding of the terms of the engagement between the auditor and management. Further, there are factors the audit firm should consider prior to accepting a new audit engagement.

You are the Audit Supervisor for the audit of Chesha and you will lead the auditing of trade payables. You are aware that Chesha's automated payables ledger generates a computerised list of payments to be made, which is sent electronically to the Finance Manager. The Finance Manager compares this list to the invoices, signs each invoice to indicate approval for payment, and then forwards the electronic payments list to the accountant. The accountant uses online banking to pay the suppliers. The electronic payments list is filed in month order on the computer. At the end of the year, the trade payables balance amounting to K520 million was included in the draft financial statements and this amount is material.

Chesha had a visit from the Zambia Revenue Authority (ZRA) who reviewed the Value Added Tax (VAT) calculations and discovered that an incorrect tax rate had been applied on standard rated goods. Standard rated goods were treated as zero-rated goods in order to increase the sales revenue and avoid paying any tax to ZRA. The Finance Director has queried the Engagement Partner on why the audit team did not detect this non-compliance during the audit.

Chesha's Finance Director has read about review engagements and is interested in the possibility of Zunda undertaking these in future. However, he is not sure of how these engagements differ from an external audit and how much assurance would be gained from this type of engagement. Your audit firm has undertaken several review engagements before for other audit clients, and you were part of the review engagement team.

Required:

(a) (i) Explain four (4) factors which should be considered prior to accepting a new audit engagement. (4 marks)

(ii) Explain three (3) pre-conditions for the audit engagement that should be present. (3 marks)

(b) Describe five (5) substantive audit procedures the auditor should perform in relation to the year-end trade payables. (5 marks)

(c) Explain the responsibilities of management and auditors of Chesha regarding preventing and detecting non-compliance with laws and regulations. (4 marks)

(d) Explain four (4) main differences between a review engagement and an external audit. (4 marks)

[Total 20 Marks]

QUESTION FIVE

(a) You attended the ZICA workshop on International Standards on Auditing where; ISA 320: *Materiality in planning and performing an audit*, and ISA 530: *Audit sampling*, were discussed by audit partners from the Big Four (4) audit firms.

Required:

Briefly explain the meaning of:

(i) Materiality. (1 mark)

(ii) Performance materiality. (1 mark)

(iii) Random sampling; and (1 mark)

(iv) Systematic sampling. (1 mark)

(b) Your firm of chartered accountants is auditor of Langa Co. (Langa) and the audit of the financial statements for the year ended 30 June 2024 is underway. As Audit Manager, you had a meeting with Langa's management regarding written representations and you discussed a number of items that should be included in the representation letter by Management of Langa as required by ISA 580 *Written representations.* Management of Langa Co provided the written representations acknowledging its responsibilities for the preparation of the financial statements.

Towards the finalisation of the audit, the matters below arose and you requested the Audit Senior to personally deal with these issues and that he should brief you on the implication on the audit report and opinion if the matters remain unresolved.

Langa's Profit before tax is K50 million.

Issue One

The Fixed Assets Accountant calculated depreciation on the total of property (land and buildings). In previous years it has only been calculated on buildings. Total depreciation is K12.5 million and the element charged to buildings only is K9 million. (4 marks)

Issue Two
Langa's sales ledger software is backed up regularly, however for a period of three (3) months the sales records and the back-ups have been destroyed by fire, and therefore cannot be accessed. The sales revenue for these three (3) months is K5.5 million. (4 marks)

Issue Three
The industry regulator has filed a lawsuit for K25 million against Langa alleging a breach of operating licence; this case is ongoing and will not be resolved prior to the audit report being signed. A provision of K19 million has been made in the financial statements and adequately disclosed in the notes to the financial statements of Langa.
(4 marks)

Required:

(i) Evaluate each of the issues one (1) to three (3) in the scenario above and explain the impact on the audit report and opinion if these issues remain unresolved. (12 marks)

(ii) State four (4) matters that should be included in the written representations from management of Langa Co acknowledging its responsibilities according to ISA 580 *Written representations.* (4 marks)

[Total 20 Marks]

END OF PAPER

CA 2.3 AUDITING PRINCIPLES AND PRACTICE- SUGGESTED SOLUTIONS

SOLUTION ONE

(a)(i) Difference between audit strategy and audit plan:

The audit strategy
This sets out, in general terms, how the audit is to be conducted and sets the scope, timing and direction of the audit.

The audit plan
This sets out the detailed responses to the auditor's risk assessment (it details the nature, timing and extent of audit procedures to be performed).

(ii) Importance of audit documentation:
(1) Assists the engagement team to plan and perform the audit efficiently and effectively.
(2) Assists in the effective supervision of audit work by supervisors.
(3) Enables audit staff to be accountable for the audit work they carry out.
(4) Ensures that a record of matters of significance to future audits is retained.
(5) Helps facilitate quality control reviews and inspections for audit work.
(6) Provides sufficient and appropriate record of the basis for the auditor's opinion.
(7) Provides evidence that the audit was planned and performed in accordance with ISAs.

(b) Audit risks and auditors' responses:

#	Risk	Response
1	K10 million, has been included within intangible assets. There is a risk that intangible assets could be overstated, and expenses understated, because research costs have been capitalised. Further, there is a risk that development costs that do not meet the criteria for capitalisation may have been capitalised.	Obtain a breakdown of costs, review expenditure documentation to determine costs which relate to research and discuss with the Finance Director that research costs should be expensed to profit or loss – IAS 38.
2	Repairs and maintenance costs amounting to K2 million have been capitalised. There is a risk that property, plant and equipment (PPE) and profits are overstated, and prepayments are understated.	Discuss with the Finance Director that repairs and maintenance costs should be charged to profit or loss over time (4 years). If the repairs and maintenance costs for 2024 have been carried out, then K0·5million should be charged to profit or loss – IAS 16.
3	K15 million loan is to be repaid in instalments over 5 years. There is a risk that the loan is incorrectly split between current and non-current liabilities and the loan may not be disclosed correctly.	Verify that the split between current and non-current liabilities and disclosures are correct or appropriate. This will be done by inspecting the draft financial statements for disclosures.
4	Payments in advance of K130 million have been received for the month ending June 2024. There is a risk that these payments may be recognised as revenue leading to liabilities being understated and profit overstated.	Enquire from the Finance Director how the payments in advance have been accounted for. Verify that the payments that are within 60 days as at 30 June 2024 have been recognised as refund liability (deferred income) in the draft financial statements.

5	A refund amount of K3 million. This is a highly subjective area, with many judgements required with regards to the level of likely refund due. There is a risk that liabilities and profits may be under or overstated.	Discuss with management the basis of the refund provision of K3 million and obtain supporting documentation to confirm the reasonableness of the assumptions used and calculations.
6	Bank reconciliations for May and June contained unreconciled differences. There is a risk that the unreconciled differences could result in bank balances being under or overstated. Unreconciled amounts could be due to fraud.	Discuss this issue with the Finance Director that unreconciled differences should be fully reconciled. The reconciling items should be agreed to supporting documentation. Throughout the audit, the audit team should maintain professional scepticism.
7	A directors' bonus scheme introduced is based on achieving a target profit before tax of K500 million. There is a risk that the directors might manipulate the results (profit before tax) to get the bonus.	Throughout the audit, the audit team will need to be alert to this risk and maintain professional scepticism. Review treatment of provisions in detail, and any journal adjustments affecting profit should be tested in detail.
8	The Finance Director would like the audit to be completed earlier this year. A reduction in the audit timetable will increase detection risk and places additional pressure on the team in obtaining sufficient and appropriate evidence.	The timetable should be confirmed with the Finance Director. If it is to be reduced, then two audits visits should be performed, an interim audit, say in March or April and the final audit thereafter to reduce the pressure on the final audit.

(c) Substantive procedures on a new equipment purchased:

(1) Inspect the equipment physically to verify or confirm existence.
(2) Compare/agree the cost of the equipment to the supplier invoice to confirm valuation.
(3) Inspect the legal documents (i.e. sale agreement) to confirm ownership.
(4) Inspect the supplier invoice to verify rights and obligations.
(5) Agree the details of the equipment to the non-current asset register to confirm completeness.
(6) Recalculate the depreciation and carrying value of the equipment to verify accuracy.
(7) Review the draft financial statements and confirm that the presentation and disclosures for the equipment purchases has been accounted for in accordance with the provisions of IAS 16.

(d) Internal control weaknesses and recommendations:

#	**Weakness and Implication**	**Recommendation**
1	The wages calculations are not checked. Therefore, payroll errors would not be identified. This could result in wages being over or under calculated and paid, leading to an additional payroll cost or some employees may not be paid on time due to omission/error.	A senior member of the payroll team (Payroll Manager) should recalculate the gross to net pay workings for a sample of employees and compare their results to the output from the payroll system. These calculations should be signed as approved (HR Director) before payments are made.
2	Annual wages increases are updated in the payroll system and standing data is updated by payroll officers. These officers could make mistakes leading to wrong payment of wages. In addition, they could make unauthorised changes.	Payroll officers should not have access to standing data changes within the system. The annual wages increase should be performed by a senior member (Payroll Manager) of the payroll department, and this should be checked by another responsible official (HR Director) for errors.
3	Authorisation of overtime is only for overtime worked for 50 or more hours. This could result in claims for overtime not worked being claimed when below 50 hours for which no authorisation is required.	All overtime hours worked should be authorised by the relevant department head. This should be evidenced by signature of the relevant department head before they are submitted to the payroll department.
4	Overtime worked report is not always checked. This increases the risk that employees can claim the overtime they did not work for, which might result in additional payroll costs.	This report should always be checked by responsible officers, and this should be evidenced by their signatures on the overtime worked report to ensure that the report is error free.
5	The payroll department asks departmental heads to report to the payroll department only if there are any errors recorded in the report. This could result in the payroll department making incorrect overtime payments.	All departmental heads should report to the payroll department on whether or not the overtime report is correct. The payroll department should follow up on any non-replies. No payments should be made before the confirmation/authorisation by the department head.
6	The overtime sheets are authorised by the Payroll Accountant. This same person also enters the overtime hours into the payroll package, this can create an opportunity for fraud to be committed due to lack of separation of duties.	Independent senior officers (other department heads not on leave could sign on behalf of those on annual leave) should be the ones to authorise the overtime sheets when the department heads are on annual leave to avoid fake overtime from been paid.
7	The Finance Director reviews the total list of bank transfers with the total to be paid per the payroll records. There could be employees omitted or ghost employees added to the payment listing.	The Finance Director should on a sample basis perform checks from payroll records to payment list and vice versa to confirm that payments are complete and only made to bona fide employees. The Finance Director should sign the payments list as evidence that he has undertaken these checks.
8	For the causal workers, the pay packets are given to their supervisor	No supervisor should be allowed to hand out wages. Wages should be paid out by the

	to distribute. This cash may not be in a secure location and so is open to the risk of theft or loss.	payroll officers or payroll accountant to secure the money.
9	The supervisor keeps the wages and returns them to the payroll department after 1 week. This cash is therefore not secure and is susceptible to loss or theft.	Employees who miss the payout by the payroll department would need to wait. No supervisor should be allowed to keep the wages. Pay packets of absent causal workers should be safely secured in the safe overnight and then banked promptly.

(e) Substantive procedures for payroll expenses:

(1) Recalculate the gross and net pay figures for a sample of employees and agree to the payroll records.
(2) Reperform the calculation of statutory deductions and agree to supporting documentation to confirm accuracy.
(3) Agree the total net pay per the payroll records to the bank transfer listing and to the cash book and bank statement.
(4) Recalculate overtime pay for a sample of employees and agree to HR overtime records.
(5) Recalculate leave pay for a sample of employees and agree to HR leave records.
(6) Agree the payroll control account reconciliation to accounting records and investigate any differences
(7) Compare the total payroll figure this year to the prior year, discuss with management any significant differences.
(8) For a sample of employees, compare or agree salaries per HR records to the payroll records to confirm accuracy.
(9) Review monthly payroll charges, compare this to the prior year and budgets and discuss any significant differences with management.

SOLUTION TWO

(a) Ethical threats and safeguards:

#	**Ethical threat to independence**	**Safeguards**
1	The proposed new Review Partner was audit partner for 7 years until recently, so he may lack professional skepticism and objectivity when reviewing the audit work. This creates a self-review threat.	Wanga is a listed company, so the audit partner who recently completed his 7 years cannot serve as an independent Review Partner for a period of 2 years. Another review partner should be appointed.
2	Helping Wanga in recruiting a new Financial Controller is likely to create self-interest threat as the firm will recruit the person who will support their re-election as auditors or increase in audit fees.	The audit firm should not perform management responsibilities by not making decisions such as selecting and appointing the Financial Controller. The audit firm may just review the list of short-listed people for the position.
3	The Audit Manager for Wanga has just announced that he is leaving Bwino to join Wanga as the Finance Manager. This person is interested in getting the job and he will be intimidated to report errors or possible frauds.	This Audit Manager should be removed, and an independent audit manager should be appointed. The audit work done by this Audit Manager should be reviewed and the audit plan may need modification.
4	The audit firm representing Wanga in negotiations to resolve some outstanding issues with the taxation authorities is likely to create advocacy threat as the firm will be seen to be on the side of the client, so the independence of the firm is compromised.	This issue is likely to make the independence of the firm to be seen to be compromised, so it is advisable that the firm politely declines this request.
5	If the audit team senior member is seconded and prepares records and schedules which support the financial statements and is then part of the audit team responsible for auditing these, this will create self-review threat.	The team member on secondment is likely to be directly involved in dealing with items related to the financial statements which they helped to prepare. As such, the request should be politely declined, or the team member should be removed from the audit team and replaced with someone independent.

(b) Corporate governance concerns in Wanga Co:

#	Non-compliance	Recommendation
1	Unbalanced Board - The Board comprises 5 executive directors and 3 non-executive directors.	At least half of the Board should comprise non-executive directors to ensure that the Board makes the correct and objective decisions. Hence Wanga should consider recruiting and appointing additional 2 Non-Executive Directors.

2	Lack of separation of authority – The same person is both the Chairman and Chief Executive Officer.	There should be a clear division of responsibility at the level of head of the company and no one (1) individual should have such unrestricted levels of decision-making. An independent person should be appointed as either Chairman or Chief Executive Officer.
3	Wanga has not established an internal audit function/department to save costs.	The audit committee should consider the effectiveness of internal controls and internal audit could perform this role. Where there is no internal audit function, the audit committee is required to annually consider the need for one. Both costs and benefits should be considered.
4	The remuneration for the executive directors is set by the Finance Director and approved by the chairman.	There should be a fair and transparent policy in place for setting remuneration levels, so the executive directors should not be involved. The non-executive directors (remuneration committee) should decide on the remuneration of the executive directors.
5	No member of the Board of Directors has been subjected to re-election by shareholders for many years	The directors should be subjected to re-election by the shareholders at regular intervals not exceeding three (3) years. At the current year's AGM, it should be proposed that the directors are subjected to re-election.

(c) Audit procedures performed during inventory count:

(1) Observe the counting teams to ensure they are following inventory count instructions.
(2) Observe the movements of inventory during the count, to avoid omission and double counting.
(3) Confirm that damaged inventory is identified and recorded separately.
(4) Confirm that third party inventory has been identified and recorded separately and excluded from the count.
(5) Confirm that counted inventory is recorded on inventory count sheets in ink.
(6) Take note of the last Goods Received Notes (GRNs) and Goods Despatched Notes (GDNs) to confirm cut-off.
(7) Select a sample and perform test counts from inventory sheets to inventory and vice versa.

(d) External auditors' responsibilities in relation to the prevention and detection of fraud:

(1) To obtain reasonable assurance that the financial statements taken as a whole are free from material misstatement, whether caused by fraud or error.
(2) To identify and assess the risks of material misstatement of the financial statements due to fraud.
(3) To obtain sufficient appropriate audit evidence regarding the assessed risks of material misstatement due to fraud, by designing and implementing appropriate responses.
(4) To respond appropriately to fraud or suspected fraud identified during the audit.
(5) To maintain professional scepticism throughout the audit, considering the potential for management override of controls.

(6) To ensure that the whole engagement team is aware of the risks and responsibilities for fraud and error, ISAs require that a discussion is held within the team.

SOLUTION THREE

(a) Indicators of going concern problems in Mazabuka Co:

(i) A new competitor is offering lower prices and Mazabuka is losing the market share. If Mazabuka continues to lose market share this will impact on future cash flows.
(ii) 5 large customers have stopped trading with Mazabuka. This could result in a significant loss of future revenues and profit and will affect future cash flows.
(iii) Mazabuka has found it difficult to replace 4 directors who resigned given their experience and skills. If it cannot recruit enough staff, then this will affect the product development and revenue.
(iv) Two (2) main suppliers who provide the company with special raw materials have stopped trading. This could result in the company facing production challenges making it fail to meet customer requirements.
(v) The shareholders have declined to invest. This could affect the going concern of the company.
(vi) Mazabuka has no money to meet the loan repayment on time. The bank may sue Mazabuka, and this could affect the going concern of the company.
(vii) The directors have produced a cash flow forecast which shows a negative position over the coming 12 months. This could affect the going concern of the company.
(viii) One of Mazabuka's customers has taken legal action against the company for loss of earnings. If the manufacturing licence was to be revoked, this could affect the going concern of the company.

(b) Substantive procedures for trade receivables:
(1) Perform trade receivables confirmation to verify existence of receivables.
(2) For a sample of goods despatched notes (GDN) immediately before and after the year-end, confirm that they are recorded in the correct accounting period.
(3) Review customer correspondence for disputed balances and discuss with management the possibility of irrecoverable debts.
(4) Review the aged trade receivables ledger/aging to identify any slow moving or old balances and discuss with the credit controller the possibility of bad debts.
(5) For receivables with credit balances, discuss with the finance director/manager the possibility of reclassifying them as trade payables.
(6) Agree the sales ledger control account balance to the trial balance to verify accuracy.
(7) Recalculate the allowance for receivables and compare it to the allowance for receivables provided for/recorded.
(8) Inspect the cash books and bank statements for any after year-end cash receipts or receivables payments.

(c) Auditors' responsibilities in relation to uncorrected misstatements:
(1) Accumulate misstatements which occur during the audit unless they are very small amounts or immaterial.
(2) Consider whether the misstatements would require the audit strategy and plan to be revised.
(3) Determine whether uncorrected misstatements are material in aggregate or individually.
(4) Communicate material misstatements to those charged with governance on a timely basis.
(5) Request that the necessary amendments or corrections should be made.
(6) If this request is refused, then the auditor should consider the potential impact on their audit report.
(7) Request a written representation from management to confirm that uncorrected misstatements are immaterial.

(d) Factors to consider when relying on independent expert valuer:

(1) The competence, and capabilities including expertise and objectivity of an expert.
(2) The qualifications, skills and knowledge of the independent expert valuer.
(3) The experience of the independent expert valuer.
(4) Membership to any professional body or industry associations/certifications.
(5) The assumptions used by the independent expert valuer.
(6) Compare the valuation with auditors' own understanding and assessments.

SOLUTION FOUR

(a)(i) Factors to consider prior to accepting new audit engagement:

(1) Consider whether you qualify to act as auditors: legally, professionally and ethically.
(2) Consider the availability of competent staff, appropriate resources, any specialist skills or knowledge needed.
(3) Communicate with the outgoing auditor to assess if there are any ethical or professional reasons why one should not accept appointment.
(4) Obtain permission from the client to contact the existing auditor, if this is not given then the engagement should be refused.
(5) Obtain permission from the client to respond, if not given then the prospective auditor should refuse the engagement.
(6) Consider management integrity and assessing whether any conflict of interest with existing clients would arise.
(7) Consider the audit risk of the client and whether the expected engagement fee would be sufficient for the level of anticipated risk.

(ii) Pre-conditions for the audit:

(1) Determine whether the financial reporting framework to be applied in the preparation of financial statements is acceptable.
(2) Management should acknowledge its responsibility for the preparation of the financial statements in accordance with the applicable financial reporting framework.
(3) Management should accept the responsibility for the establishment of internal controls necessary to enable the preparation of financial statements which are free from material misstatement, whether due to fraud or error.
(4) Auditors should have access to all relevant information and documents for the preparation of the financial statements.
(5) Auditors may request from management unrestricted access to persons from whom the auditor determines it necessary to obtain audit evidence.

(b) Substantive procedures for year-end trade payables:

(1) Select a sample of payables balances and perform a trade payables' confirmation to ascertain existence.
(2) Select a sample of goods received notes (GRNs) before the year-end and verify cut-off is correct.
(3) Obtain a listing/ageing of trade payables from the purchase ledger and agree to the general ledger and the financial statements to verify accuracy.
(4) Agree the total of purchase ledger accounts with the purchase ledger control account to verify accuracy.
(5) Cast the list of balances and the purchase ledger control account to agree to the trial balance.
(6) Review the purchase ledger for any debit balances, and for any significant amounts discuss with management and consider reclassification as current assets.
(7) Ensure payables are included in financial statements as current liabilities.
(8) Review the list of trade payables against prior years to identify any significant omissions.
(9) Calculate the trade payable days and compare to prior years, investigate any significant differences.
(10) Review after reporting date payments, if they relate to the current year then follow through to the cash book and bank statements.

(c) Responsibilities regarding compliance with laws and regulations:

Management's responsibilities:
Management has the primary responsibility for ensuring that the company complies with the laws and regulations that apply to it.

Management is required to put in place controls which will assist in ensuring that laws and regulations are complied with.

Auditor responsibilities:
ISA 250 *Consideration of laws and regulations in an audit of financial statements* gives guidance to the auditors in this area.

The responsibility of the auditors is to obtain sufficient appropriate audit evidence that the financial statements are free from material misstatements due to non-compliance with laws and regulations.

The auditors are also required to respond to any non-compliance with laws and regulations and also perform specific audit procedures to identify non-compliance with laws and regulations that may exist.

(d) Differences between review engagement and external audit:

(1) The purpose of the review engagements is to enable a practitioner to state whether anything has come to his attention which indicate that the financial data is not in accordance with the financial reporting framework.
(2) The purpose of external audit is to enable the auditor express an opinion on whether the financial statements are free from material misstatements.
(3) In a review engagement, less audit procedures are undertaken. Analytical review and enquiry are used extensively.
(4) In external audit, many audit procedures are performed to obtain sufficient appropriate evidence.
(5) In a review engagement the practitioner does not need to comply with ISAs.
(6) In external audit the auditor is required to comply with ISAs.
(7) In a review engagement, limited assurance which is a low level of assurance is provided and is given in a negative form.
(8) In external audit, reasonable assurance that is a high level of assurance is given in a positive form.

SOLUTION FIVE

(a) Brief explanation of:

(i) Materiality:
Misstatements and omissions are material if they could influence the economic decisions of users of the financial statements.

(ii) Performance materiality:
An amount or amounts set by the auditor at less than materiality for the financial statements as a whole.

(iii) Random Sampling:
Ensures each item in a population has an equal chance of selection, for example, by using random number generators or tables.

(iv) Systematic Sampling:
This involves having a constant sampling interval, for example, every 10th item being selected, the starting point for testing is determined randomly.

(b) (i) Evaluation of issues 1 to 3:

Issue one:
(1) Depreciation has been provided on the land element of property, plant and equipment, this is contrary to IAS 16 Property, Plant and Equipment, as depreciation should only be charged on buildings.
(2) The error of K3.5 (K12.5 - K9) is material as it represents 7% of profit before tax (K3.5m/K50m) and hence management should remove this from the financial statements.

Impact on report if matter remains unresolved:
(1) If management refuses to amend this error, then the audit report will need to be modified.
(2) As management has not complied with IAS 16 and the error is material but not pervasive then a qualified opinion would be necessary.
(3) A basis for qualified opinion paragraph would need to be included explaining the material misstatement in relation to the provision of depreciation on land and the effect on the financial statements.
(4) The opinion paragraph would be qualified 'except for' – due to material misstatement

Issue two: - Sales ledger software
(1) Since the sales ledger cannot be accessed, the auditors should attempt to verify the sales figure in an alternative manner.
(2) If they are unable to do this, then the sales figure for the whole year would not have been verified.
(3) This sales figure represents 11% of profit before tax (K5.5m/K50m) and therefore is a material balance for which audit evidence has not been available.

Impact on report if matter remains unresolved:
(1) The auditors would need to modify the audit report as they are unable to obtain sufficient appropriate evidence in relation to a material, but not pervasive matter.

(2) A qualified opinion would be required in the audit report.
(3) A basis for qualified opinion paragraph would be required to explain the limitation in relation to the lack of evidence for 3 months of sales records.
(4) The opinion paragraph would be qualified 'except for' – due to insufficient appropriate audit evidence.

Issue three: - Lawsuit
(1) The company is being sued and this matter has been correctly disclosed in accordance with IAS 37 Provisions, Contingent Liabilities and Contingent Assets.
(2) The lawsuit is for K25m which represents 50% of profit before tax (25m/50m) and hence is a material matter.
(3) This is fundamental to the users' understanding of the financial statements.

Impact on report if matter remains unresolved:
(1) An emphasis of matter paragraph would need to be included in the audit report, in that the matter is appropriately disclosed but is fundamental to the users' understanding of the financial statements.
(2) This would not affect the audit opinion which would be unmodified in relation to this matter.
(3) An emphasis of matter paragraph should be inserted after the opinion paragraph, the paragraph would explain clearly about the lawsuit and cross references to where in the financial statements the disclosure of this contingent liability can be found.

(ii) Matters to be included in written representations from management according to ISA 580 *Written representations*:
(1) Management acknowledging that it has fulfilled its responsibilities to prepare the financial statements.
(2) Acknowledging that management has prepared the financial statements in accordance with the applicable financial reporting framework.
(3) That management has provided the auditors with all relevant information necessary for the audit.
(4) That all transactions that occurred have been recorded and reflected in the financial statements.

END OF SUGGESTED SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA APPLICATION ADVANCED DIPLOMA IN ACCOUNTANCY

CA 2.4: TAXATION

THURSDAY 12 JUNE 2025

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 7 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
K1 to K61,200	first K61,200	0%
K61,201 to K85,200	next K24,000	20%
K85,201 to K110,400	next K25,200	30%
Over K110,400		37%

Income from farming for individuals

K1 to K61,200	first K61,200	0%
Over K61,200		10%

Company Income Tax rates

On income from manufacturing and other	30%
On income from farming and agro-processing	10%
On income from mineral processing	30%
On income from mining operations	30%

Mineral Royalty

Mineral Royalty on Copper

Price range per tonne	Taxable amount	Rate
Less than US$4,000 per tonne	First US$3,999	4.0%
US$4,000 or more but less than US$5,000 per tonne	Next US$1,000	6.5%
US$5,000 or more but less than US$7,000 per tonne	Next US$2,000	8.5%
US$7,000 or more per tonne	Balance	10.0%

Mineral Royalty on other minerals

Type of mineral	Mineral Royalty Rate
Cobalt and vanadium	8% on norm value
Base metals (other than copper, cobalt and vanadium)	5% on norm value
Energy and industrial minerals	5% on gross value
Gemstones	6% on gross value
Precious metals	6% on norm value

Capital allowances

Implements, plant and machinery and commercial vehicles:

Wear and tear allowance –	Standard wear and tear allowance	25%
	Wear and tear allowance if used in manufacturing and leasing	50%
	Wear and tear allowance if used in farming and agro-processing	100%
	Wear and tear allowance if used in Mining and Mineral processing	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

First K12,000	0%
K12,001 to K5,000,000	5%

Tax on rental income

Annual Rental income band	Taxable amount	
K1 to K12,000	First K12,000	0%
K12,001 to K800,000	Next K788,000	4%
Above K800,000		16%

Presumptive Tax for transporters

Seating capacity	Tax per annum	Tax per quarter
	K	K
Less than 12 passengers and taxis	1,296	324
From 12 to 17 passengers	2,592	648
From 18 to 21 passengers	5,184	1,296
From 22 to 35 passengers	7,776	1,944
From 36 to 49 passengers	10,368	2,592
From 50 to 63 passengers	12,960	3,240
From 64 passengers and over	15,552	3,888

Property Transfer Tax

On the realised value of land (including buildings, structures or improvements thereon)	8%
On the realised value of shares	8%
On the realised value of intellectual property	8%
On the realised value of a mining right for an exploration license	8%
On the realised value of a mining right for a mining licence	10%
On the realised value tax on realised value of 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

Motor vehicles for the transport of ten or more persons, including the driver	**Aged 2 to 5 years**		**Aged over 5 years**	
	Customs duty	**Excise duty**	**Customs duty**	**Excise duty**
	K	K	K	K
Sitting capacity of 10 but not exceeding 14 persons including the driver	20,090	25,112	10,045	12,556
Sitting capacity exceeding 14 but not exceeding 32 persons	43,984	0	15,639	0
Sitting capacity of 33 but not exceeding 44 persons	97,742	0	21,992	0
Sitting capacity exceeding 44 persons	122,177	0	48,871	0

Motor cars and other motor vehicles principally designed for the transport of persons including station wagons and racing cars	**Aged 2 to 5 years**		**Aged over 5 years**	
	Customs duty	**Excise duty**	**Customs duty**	**Excise duty**
	K	K	K	K
Sedans				
Cylinder capacity not exceeding 1000 cc	14,113	12,231	8,065	6,989
Cylinder capacity exceeding 1000 cc but not exceeding 1500 cc	18,145	15,726	9,678	8,387
Cylinder capacity exceeding 1500 cc but not exceeding 2500 cc	18,695	24,304	9,518	12,373
Cylinder capacity exceeding 2500 cc but not exceeding 3000 cc	20,395	26,514	11,897	15,466
Cylinder capacity exceeding 3000 cc	25,494	33,142	13,597	17,676
Hatchbacks				
Cylinder capacity not exceeding 1000 cc	12,097	10,484	8,065	6,989
Cylinder capacity exceeding 1000 cc but not exceeding 1500 cc	16,129	13,979	9,678	8,387
Cylinder capacity exceeding 1500 cc but not exceeding 2500 cc	16,996	22,095	9,518	12,373
Cylinder capacity exceeding 2500 cc but not exceeding 3000 cc	18,695	24,304	11,897	15,466
Cylinder capacity exceeding 3000 cc	22,095	28,723	13,597	17,676
Station wagons				
Cylinder capacity not exceeding 1000 cc	14,113	12,231	8,065	6,989

Cylinder capacity exceeding 1000 cc but not exceeding 1500 cc	18,144	15,725	9,678	8,387
Cylinder capacity exceeding 1500 cc but not exceeding 2500 cc	18,695	24,304	10,198	13,256
Cylinder capacity exceeding 2500 cc but not exceeding 3000 cc	20,395	26,514	11,897	15,466
Cylinder capacity exceeding 3000 cc	25,494	33,142	13,597	17,676
SUVs				
Cylinder capacity not exceeding 1000 cc	17,598	15,252	10,559	9,151
Cylinder capacity exceeding 1000 cc but not exceeding 1500 cc	20,463	17,735	12,278	10,641
Cylinder capacity exceeding 1500 cc but not exceeding 2500 cc	23,794	30,933	14,277	18,560
Cylinder capacity exceeding 2500 cc but not exceeding 3000 cc	27,193	35,351	17,540	22,802
Cylinder capacity exceeding 3000 cc	32,292	41,980	20,395	26,514

	Aged 2 to 5 years		**Aged over 5 years**	
Motor vehicles for the transport of goods	**Customs duty**	**Excise duty**	**Customs duty**	**Excise duty**
	K	K	K	K
Single cab				
GVW exceeding 1.0 tonne but not exceeding 1.5 tonnes	24,777	10,737	9,911	4,295
GVW exceeding 1.5 tonnes but not exceeding 3.0 tonnes	29,732	12,884	17,344	7,516
GVW exceeding 3.0 tonnes but not exceeding 5.0 tonnes	34,687	15,031	19,821	8,589
Double cabs				
GVW not exceeding 3 tonnes	34,687	15,031	27,254	11,810
GVW exceeding 3.0 tonnes but not exceeding 5.0 tonnes	38,156	16,534	29,980	12,991
Panel vans				
GVW not exceeding 1.0 tonne	15,089	6,539	8,622	3,736
GVW exceeding 1.0 tonne but not exceeding 1.5 tonnes	17,344	7,516	9,911	4,295
GVW exceeding 1.5 tonnes but not exceeding 3.0 tonnes	19,821	8,589	17,344	7,516
GVW exceeding 3.0 tonnes but not exceeding 5.0 tonnes	24,777	10,737	19,821	8,589
Trucks				
GVW up to 2 tonnes	15,715	12,048	7,246	5,556

GVW exceeding 2.0 tonnes but not exceeding 5.0 tonnes	17,461	13,387	8,731	6,694
GVW exceeding 5.0 tonnes but not exceeding 10.0 tonnes	27,938	21,419	10,477	8,032
GVW exceeding 10.0 tonnes but not exceeding 20.0 tonnes	34,923	26,774	13,271	10,174
GVW exceeding 20 tonnes	58,645	0	21,992	0

NB: Import VAT is added to the sum of VDP, customs duty and excise duty. It is determined at the standard rate of 16%

Surtax

On all motor vehicles aged more than five 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

Mfuwe Plc is a company carrying on farming operations which listed its shares on the Lusaka Securities Exchange in 2011. It has 2,500,000 issued ordinary shares of K1 each and 1,500,000 of the ordinary shares are held by indigenous Zambians. In January 2025, the directors estimated the provisional taxable profits from farming operations for the tax year 2025 to be K17,600,000.

For the year ended 31 December 2025, Mfuwe plc made a profit before tax as per accounts of K21,600,100. This net profit figure was arrived at after accounting for the following items:

(1) Expenses relating to licenses, insurance and levies comprising, insurance for buildings of K74,500, Lusaka City Council levies of K10,500, fees for renewal of trading licence of K15,000, motor vehicle insurance of K62,000 and penalties levied for late remittance of NAPSA contributions of K13,500.

(2) Legal and professional fees which included fees paid to the following firms:

	K
Mubanga & Co for trade debt collection	137,500
Musonda & Associates for land surveying & conveyancing	142,900
Mwango & Co for building valuations	124,600
MCL Chartered Accountants for Audit fees	195,000
	600,000

(3) Staff costs which included wages for casual workers of K1,186,800, employee's salaries of K26,755,600, funeral grants of K120,000, security guard's uniforms of K125,400, employee's subscriptions to the local fitness gym of K164,300, contributions to employee's private medical schemes of K86,400, employer's NHIMA contributions of K27,900, Employer's NAPSA contributions of K1,337,700 and rentals for the residence of the company's Human Resources Director of K132,000.

(4) Expenses relating to gifts, hospitality and entertainment, which included, staff refreshments of K232,000, entertainment expenses for the board members amounting to K125,800, staff Christmas party of K164,000 and gifts to customers of food hampers valued at K200 per customer totalling K186,300.

(5) Irrecoverable debt expenses comprising the following items:

	K
Trade debts written off	325,600
Staff loans written off	456,700
Decrease in specific allowance for receivables	(96,500)
Decrease in general allowance for receivables	(68,400)
Loans previously written off now recovered	(126,700)
	490,700

(6) General operating expenses include expenditure on herbicides of K135,200, expenditure on pesticides of K165,400, crop insurance expenses of K256,00, hire charges for tractors

of K125,000, theft of farm produce by farm security guards valued at K44,600, depreciation charges of K686,000, donations of farm produce to the less privileged in the local community amounting to K285,000 and miscellaneous allowable operating expenses of K16,544,300

(7) Other income credited to the accounts which included dividends of K340,000 (net), Treasury bill discount of K765,000 (net), profit on sale of farm implements of K48,000. Withholding tax where applicable was deducted at source and paid on the appropriate due date.

Additional Information

The following additional information is available:

(1) **Chief Financial Officer's Accommodation**

The company provided free residential accommodation to the Chief Financial Officer (CFO) throughout the tax year 2025. The CFO's gross taxable emoluments are K920,000 per annum.

(2) **Farm related expenditure**

The company incurred the following expenditure relating to farming operations during the year ended 31 December 2025:

	K
Drilling of boreholes	260,000
Expenditure on new citrus fruit plantation	850,000
Construction of cattle dip tanks	640,000
Expenditure on works for the prevention of soil erosion	175,000
Construction of a farm dwellings for farm employees (Costing K250,000 per unit)	750,000
Expenditure on new rose flower plantation	880,000

(3) **Implements, plant and machinery**

On 1 January 2025, the Income Tax Values of implements, plant and machinery relating to farming operations were as follows:

	ITV b/f	Cost
	K	K
Ford Ranger Double cab (Van 3,200cc)	992,000	1,240,000
Pool car (2,000cc)	416,000	520,000

The pool car was used in the operations of the marketing department, but it had private use of 25% by the company's Marketing Director. The Ford Ranger double cab van is provided to the Human Resources Director on a personal to holder basis. His private use of the car is 40%.

The company sold farm implements for K185,500 on 1 January 2025. The original cost of the farm implements was K166,000 and the Income tax value at 1 January 2025 was zero (0).

During the tax year 2025, the company purchased a sausage making machine at a cost of K175,000 and a cattle transportation truck at a cost of K1,500,000.

Required:

(a) Calculate the amount of provisional income tax paid by Mfuwe plc for the tax year 2025. You should clearly state the due date(s) when the provisional income tax was paid, and the amount paid on the relevant due date(s). (4 marks)

(b) In relation to the farming related expenditure incurred by Mfuwe plc:

(i) Explain the meaning of farm works and compute the total amounts of the farm works allowances claimable by the company in the tax year 2025. (3 marks)

(ii) Explain the meaning of farm improvements and compute the total amounts of farm improvement allowances claimable by the company in the tax year 2025. (3 marks)

(iii) Describe the type of expenditure which qualifies for the development allowance and compute the total amount of the development allowance claimable by the company in the tax year 2025. (3 marks)

(c) Compute the amount of capital allowances claimable by the company on implements, plant and machinery. (5 marks)

(d) Compute the following for Mfuwe plc for the tax year 2025:

(i) The final tax adjusted farming profit. (11 marks)

(ii) The final amount of company income tax payable. (6 marks)

(e) Assuming that Mfuwe plc paid the company income tax you have computed in part (d) above, on 10 September 2026 and also submitted the self-assessment return on this date:

(i) Compute the amount of penalties and interest arising on the late payment of the company income tax. (3 marks)

(ii) Compute the amount of penalties arising on the late submission of the self-assessment return. (2 marks)

You should assume that the Bank of Zambia discount rate is 9.75% per annum where applicable.

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt any THREE (3) questions.

<u>QUESTION TWO</u>

Marian Phiri had been employed at MCM Plc as a Human Resources Director until 31 August 2025 when she retired from employment. She was entitled to an annual basic salary of K735,600 at the time of retirement. Other conditions of service included transport allowance at a rate of 15% of her basic salary and education allowance of 20% of basic salary.

During the year 2025, the company had paid a total amount of K40,000 on her behalf as medical expenses for the medical services provided to her family.

On 1 May 2025 she received a labour day award comprising of cash amounting to K20,000.

She had been accommodated in a company owned house, from the date of employment, for which she pays no rent. The company acquired the house in 2012 at a cost of K3,000,000. The company pays for maintenance expenses in connection with the house. During the year ended 31 December 2025, the company paid security fees amounting to K9,200 per month and general cleaning expenses amounting to K3,100 per month.

She has always used her privately owned Mitsubishi Pajero Car in the performance of her duties of employment. She bought this car in 2024 at a cost of K400,000. The cylinder capacity of this car is 2,600 cc. Motor vehicle maintenance expenses amounted to K2,200 per month and were all paid for by Marian. The motor vehicle is used 40% in the performance of duties of employment.

In addition to motor car expenses, she paid professional subscription of K8,100, NAPSA contributions of K17,890, National Health Insurance contributions of K4,904, and income tax under pay as you earn of K252,220.

Upon retirement, she received the following benefits:

	K
Pension	2,600,000
Repatriation pay	102,000
Leave pay	80,000

She holds various investments from which she received the following income during the year ended 31 December 2025:

	K
Royalties	70,380
Bank interest	12,000
Dividends from a LuSE listed company	30,000

In addition to the investment income, she also received management and consultancy fees of K51,425 (net) from the provision of Human Resource consultancy services. The above amounts represent the actual cash received. Withholding tax had been deducted and paid at source where appropriate.

Required:

(a) Calculate the amount of withholding tax deducted at source from each of the following income received by Marian in the tax year 2025:

  (i) Royalties
  (ii) Bank interest
  (iii) Dividends
  (iv) Management and consultancy fees.

(4 marks)

(b) Calculate the amount of income tax payable by Marian for the tax year 2025. You should indicate by the use of zero (0) for all employment benefits that are exempted from tax.

(16 marks)

[Total: 20 Marks]

QUESTION THREE

You are employed in a firm of Chartered Accountants. Your firm has been awarded a contract to train the newly recruited tax inspectors. Your supervisor has asked you to prepare notes for the training workshop. The notes should cover the following ethical issues in taxation.

(i) Fundamental ethical principles of integrity and confidentiality.

(ii) Threats to compliance with the fundamental principles.

Your supervisor has further assigned you to deal with the tax affairs of Ezekiel for the tax year 2025. Ezekiel wishes to commence in business soon as a retailer. In order to raise capital, he sold the following non-current assets and investments during the year ended 31 December 2025:

(1) He sold a Toyota Hilux Double Cab Van at a price of K320,000 before deducting motor car repairs of K10,000. He acquired this motor vehicle in 2022 at a cost of K400,000. The open market value of the motor vehicle was K280,000 at the date of sale.

(2) He sold a piece of land for K290,000. The plot had an open market value of K300,000 at the date of sale. He paid for land valuation services at a cost of K15,000. He acquired this piece of land in 2020 at a cost of K70,000.

(3) He transferred a two bedroomed house to his daughter. He acquired this house in 2016 at a cost of K400,000. The daughter paid him K50,000 as a token of appreciation. The open market value of the house was K1,600,000 at the date of the transaction.

(4) He sold 10,000 equity shares, he held in KPM Limited, at a price of K15 per share. The nominal value of the shares is K1 each. The open market value of each equity share was K14. He acquired these shares in 2018 at a cost of K4 each.

Required:

(a) Prepare notes for the training workshop:

(i) Explaining how the principles of integrity and confidentiality apply in the provision of tax services. (4 marks)

(ii) Explaining how the provision of tax services create self-review, self-interest and advocacy threats. (6 marks)

(b) In relation to the disposals of assets made by Ezekiel:

(i) Explain the property transfer tax implications arising from transfers made to members of the immediate family. (3 marks)

(ii) Explain the property transfer tax implications arising from the sale of each of the above non-current assets. Your answer should include a computation of property transfer tax payable on each transaction. (7 marks)

[Total: 20 Marks]

QUESTION FOUR

You are employed in a firm of Chartered Accountants. You have been assigned to deal with the tax affairs of your client, HTF Limited, a VAT registered company.

The following information relates to HTF Limited for the month of August 2025:

(1) Total revenue for the month amounted to K1,400,000. Exempt supplies amounted to K112,000, whereas zero-rated supplies amounted to K196,000. The remainder is made up of standard-rated supplies.

(2) The company issued credit notes to its customers amounting to K40,000. This amount included credit notes issued in respect of exempt supplies amounting to K10,000. The balance is made up of standard-rated supplies.

(3) Total purchases amounted to K500,000. Exempt purchases amounted to K100,000, whereas zero-rated purchases amounted to K80,000. The balance represents standard-rated purchases. 15% of the standard-rated purchases were received from suppliers who are not registered for value added tax.

(4) Standard rated general operating expenses amounted to K358,440 (VAT inclusive). These expenses comprise the following:

	K
Entertaining customers	46,400
Staff refreshments	37,120
Repairs and maintenance	74,240
Irrecoverable debts written off	26,680
Telephone expenses	9,280
Other general expenses	164,720
	358,440

The irrecoverable debts written off relates to an invoice that was due on 30 November 2023.

(5) The company purchased office furniture at a cost of K52,200 (VAT inclusive) and a motor car at a cost of K92,800 (VAT inclusive). All the assets are used to make both taxable and exempt supplies.

(6) Unless stated otherwise, all of the above figures are exclusive of value added tax.

Required:

(a) List any three (3) conditions to be met by the trader in order to claim input VAT. (3 marks)

(b) Calculate the amount of VAT payable by HTF Limited for the month of August 2025. You should indicate by the use of a zero (0) all items on which VAT is not chargeable or claimable. (14 marks)

(c) Assuming that HTF Ltd paid the VAT you have calculated in (b) above, on 15 October 2025, calculate the amount of the penalty arising for the late payment of VAT and the interest chargeable on the overdue tax. The Bank of Zambia discount rate should be taken to be 10.50% per annum where applicable. (3 marks)

[Total: 20 Marks]

QUESTION FIVE

You are employed in a firm of Chartered Accountants. Your firm has been awarded a contract to train the newly recruited tax inspectors. Your supervisor has asked you to prepare notes for the training workshop covering the following matters:

(i) Classification of taxes

(ii) Functions of the Customs Services of the Zambia Revenue Authority (ZRA)

Your supervisor has further assigned you to deal with the tax affairs of the following clients:

Client 1 - TKC Ltd

TKC Ltd will commence retail operations in January 2025, making a net profit for the year as per accounts of K249,600. Annual sales revenue will be K696,000, and this will be generated evenly throughout the year. Purchases will be K278,400 per year, whilst annual operating expenses which will be incurred wholly and exclusively for business purposes will amount to K168,000, inclusive of depreciation charges of K36,000.

Client 2- Josias

Josias, a sole trader, imported a brand-new Toyota Regius Station Wagon with a cylinder capacity of 2,400cc. The cost of the motor vehicle (free on board) amounted to $15,200. He incurred insurance cost amounting to $1,600 and transportation costs amounting to $2,800. Other incidental costs incurred up to the point of entry into Zambia amounted to $1,000. Motor vehicle registration and other costs incurred in Zambia amounted to $1,500. The Toyota Regius was manufactured in October 2024.

The exchange rate quoted by the local financial institution was K18.25 per $1 at the date of importation. The exchange rate quoted by the Bank of Zambia was K18.20 per $1 at the date of importation.

Required:

(a) Prepare notes for the training workshop explaining the meaning of the following classification of taxes, giving one example in each case:

(i) Capital taxes (2 marks)
(ii) Progressive taxes (2 marks)
(iii) Regressive taxes (2 marks)

(c) Provide notes stating any three (3) functions of the Customs Services division of the ZRA. (3 marks)

(d) Explain how TKC Ltd, will be assessed to tax in the tax year 2025 and compute the total amount of tax that will be chargeable on the company for the year. (4 marks)

(e) Calculate the total amount of import taxes paid by Josias on the importation of the Toyota Regius Car. (7 marks)

[Total: 20 Marks]

END OF PAPER

CA 2.4 – TAXATION - SUGGESTED SOLUTIONS

SOLUTION ONE

(a) COMPUTATION OF PROVISIONAL INCOME TAX FOR THE TAX YEAR 2025

	K
Provisional Taxable farming profit from retail operations	17,600,000
Provisional Income Tax on:	
Farming income (10 – 5% (W) = 5% x K17,600,000)	880,000
Provisional income tax paid per quarter (K880,000/4)	220,000

WORKING

Percentage number of shares held by indigenous Zambians is 60% (1,500,000/2,500,000 x 100%) and therefore the company qualifies for a discount of 5%.

The relevant due dates and amounts paid are as follows:

Instalment	Quarter ended	Due Date	Amount Paid K
1st	31 March 2025	10 April 2025	220,000
2nd	30 June 2025	10 July 2025	220,000
3rd	30 September 2025	10 October 2025	220,000
4th	31 December 2025	10 January 2026	220,000

(b) (i) Farm works

Farm works are all the works which are carried out on the farm land apart from farm improvements, industrial buildings and commercial buildings.

COMPUTATION OF FARM WORK ALLOWANCES

	K
Drilling of boreholes (K260,000 x 100%)	260,000
Expenditure on works for the prevention of soil erosion	175,000
	435,000

(ii) Farm improvements

Farm improvements are permanent work including a farm dwelling and fencing appropriate to farming and any building constructed for and used for the welfare of employees in relation to farming land owned or occupied by the farmer claiming the allowance for ascertaining their profit.

COMPUTATION OF IMPROVEMENT ALLOWANCES

	K
Cattle dip tanks (K640,000 x 100%)	640,000
Farm dwellings for farm employees (Restricted to K100,000 x 100%) x 3	300,000

	940,000

(iii) Development allowance

Development allowances are claimable on any capital expenditure incurred on the development of plantations such as tea plantations, coffee, cocoa and rose flower plantations.

COMPUTATION OF DEVELOPMENT ALLOWANCES

	K
Citrus fruit plantation (K850,000 x10%)	85,000
Rose flower plantation (K880,000 x 10%)	88,000
	173,000

(c) COMPUTATION OF CAPITAL ALLOWANCES ON IPMS

Ford Ranger Double cab	K	K
Wear and tear allowance		
(K1,240,000 x 20%)		248,000
Pool car (2,000cc)		
Wear and tear allowance		
(K520,000 x 20%)		104,000
Farm implements		
ITV b/f	0	
Proceeds (restricted to cost)	166,000	
Balancing charge	(166,000)	(166,000)
Sausage making machine		
Wear and tear allowance		
(K175,000 x 100%)		175,000
Truck		
Wear and tear allowance		
(K1,500,000 x 25%)		375,000
		736,000

(d) (i) MFUWE PLC
COMPUTATION OF TAXABLE PROFITS FOR THE TAX YEAR 2025

	K	K
Profit before taxation		21,600,100
Add:		
NAPSA penalties	13,500	
Fees for land surveying & conveyancing	142,900	
Fees for building valuations	124,600	
Staff refreshments	232,000	
Gifts to customers	186,300	

Staff loans written off	456,700	
Depreciation charges	686,000	
Donations of farm produce	285,000	
Accommodation benefit -Marketing Director		
(37% x K920,000)	340,400	
Personal to holder car benefit	57,600	
		2,525,000
		24,125,100
Less		
Decrease in general allowance for receivables	68,400	
Loans previously written off recovered	126,700	
Dividends	340,000	
Treasury bill discount	765,000	
Profit on sale of implements	48,000	
Farm improvements allowance	940,000	
Farm work allowance	435,000	
Development allowance	173,000	
Capital allowances on IPMs	736,000	
		(3,632,100)
Taxable business profit		20,493,000

(ii) MFUWE PLC
COMPANY INCOME TAX COMPUTATION FOR THE TAX YEAR 2025

Non farming income	K
Treasury bill discount (K765,000 x 100/85)	900,000
Farming profits	20,493,000
Total taxable income	21,393,000
Company income tax on non-faming income	
(30%-5%= 25% x K900,000)	225,000
Company income tax on faming income	
(10%-5%= 5% x K20,493,000)	1,024,650
Income tax liability	1,249,650
Less: tax already paid	
WHT on Treasury bill discount (K900,000 x 15%)	(135,000)
Provisional income tax	(880,000)
Company income tax payable	234,650

(e) (i) COMPUTATION OF PENALTIES AND INTEREST ARISING

(1) The company income tax will be paid late by 2 months and 19 days as it should be submitted on 21 June 2026 but will be submitted on 10 September 2026.

(2) A penalty of 5% per month or part thereof of the overdue tax will be chargeable. The amount of the penalty will be:

5% x K234,650 x 3 = K35,198

(3) Additionally, interest at the BOZ discount rate of plus 2% will arise. The applicable rate of interest will therefore be 9.75% + 2% = 11.75 per annum.

The amount of interest payable will be:

11.75% x K234,650 x 81/365 = <u>K6,119</u>

(ii) PENALTIS ARISING ON LATE RETURN SUBMISSION

(1) The self-assessment return income tax will be submitted late by 2 months and 19 days late as it should be submitted on 21 June 2026 but will be submitted on 10 September 2026.

(2) Since Mfuwe plc is a company, the penalty will be 2000 penalty units (K800) per month or part thereof. The amount of the penalty will be:

2000 penalty units x 3 = <u>6,000</u> penalty units

Or K800 x 3 = <u>K2,400</u>

SOLUTION TWO

(a) Withholding tax paid by Marian for the tax year 2025

		K
(i)	Royalties (K70,380 x 15/85)	12,420
(ii)	Bank interest	0
(iii)	Dividends from a LuSE listed company	0
(iv)	Management consultancy fees (K51,425 x 15/85)	9,075
	Total withholding tax	21,495

(b) MARIAN
PERSONAL INCOME TAX COMPUTATION FOR THE TAX YEAR 2025

	K	K
Employment income		
Basic salary: K735,600 x 8/12		490,400
Transport allowance: K490,400 x 15%		73,560
Education allowance: K490,400 x 20%		98,080
Medical expenses		0
Labour day awards		0
Free accommodation		0
Security fees: K9,200 x 8		73,600
General cleaning expenses: K3,100 x 8		24,800
Pension		0
Repatriation pay		0
Leave pay		80,000
		840,440
Investment/other income		
Royalties (K70,380 x 100/85)		82,800
Management consultancy fees (K51,425 x 100/85)		60,500
Gross income		983,740
Less:		
Professional subscription	8,100	
Motor car expenses (K2,200 x 8 x 40%)	7,040	
Capital allowances (K400,000 x 20% x 40%)	32,000	
		(47,140)
Taxable income		936,600
Income Tax		
On First K61,200 @0%		0
On Next K24,000 @20%		4,800
On Next K25,200 @30%		7,560
On Excess (K936,600 – K110,400) @37%		305,694
Income tax liability		318,054
Less:		
WHT – Royalties (K82,800 x 15%)	12,420	
WHT – Management Consultancy (K60,500 x 15%)	9,075	
Income tax paid under pay as you earn	252,220	
		(273,715)
Income tax payable		44,339

SOLUTION THREE

(a) Ethics

(i) Integrity

The principle of integrity imposes an obligation on the members providing tax services to be straightforward, fair dealing, and commitment not to mislead or deceive and truthfulness.

This means that members providing tax services should ensure that their own personal tax obligations and those of any associated entities for which the member is responsible are discharged properly.

This also means that the member should not be associated with reports, tax returns, communications or other information where the member believes that the information contains a materially false or misleading statement or calculation, or contains statements furnished recklessly.

Confidentiality

The principle of confidentiality imposes an obligation on the member not to disclose any information acquired as a result of professional or business relationships.

Therefore, the member should not disclose any such information to third parties without proper and specific authority, unless there is a legal or professional right or duty to disclose.

The member should also not use any information acquired for the personal advantage of the professional accountant or third parties.

(ii) The following are the threats:

(1) Self-review threat
This is the threat that a professional accountant will not appropriately evaluate the results of the previous judgements made; or an activity performed by the accountant, or by another individual within the accountant's firm.

(2) Self-interest threat
This is the threat that a professional accountant has a financial or other interest which may inappropriately influence their professional judgement.

(3) Advocacy threat
This is the threat that an accountant will promote a client's interest to the point that the accountant's objectivity is compromised.

(b) Property transfer tax

(i) A member of the immediate family includes a spouse, biological child, duly adopted child, and/or step child.

Where a transfer of property is made to an immediate family member, the realized value of such a transfer is the actual price paid by transferee to the transferor.

This means that the realized value of such transfers is deemed to be nil if no price has been charged. As a result, property transfer is not payable if a person makes a transfer of property to a member of the immediate family.

(ii) The following are the property transfer tax implications:

(1) Toyota Hilux does not meet the definition of property under the property transfer tax Act. Therefore, there would be no property transfer tax payable on the transfer of the motor vehicle.

(2) Property transfer tax will be charged on the transfer of land as it meets the definition of property. The realized value is whichever is higher between the actual price received and the open market value. The realized value is therefore K300,000.
Property transfer tax payable will be: K300,000 x 8% = K24,000

(3) The transfer of a two-bedroomed house to his daughter qualifies to be classified as transfer made to a member of the immediate family. Therefore, the realized value is the actual price received from his daughter, which is K50,000.

Property transfer tax will therefore be paid on the transfer of property to his daughter. The PTT payable will be: K50,000 x 8% = K4,000.

(4) Transfer of equity shares which are not listed on the Lusaka Securities Exchange (LuSE) qualifies for property transfer tax, therefore PTT will be paid. The realized value is the higher of nominal value; and the actual proceeds received or open market value.

The realized value will therefore be K150,000 (10,000 shares x K15). PTT payable will be: K150,000 x 8% = K12,000.

SOLUTION FOUR

(a) The following are the conditions to be met in order to claim the input VAT:
  (1) The trader should have been registered for VAT purposes at the time the supply was made.
  (2) The supply must have been made to the taxable person making the claim.
  (3) The supply must be supported by evidence, which is normally in the form of tax invoice.
  (4) The person making the claim must use the goods or services for business.
  (5) The amount available for claim as input VAT should one which is accurately calculated.
  (6) The input VAT should be one which is recoverable.
  (1 mark per valid point up to 3 marks)

(b) VAT payable for the month of August 2025

	K	K
Output VAT		
Exempt supplies		0
Zero – rated supplies		0
Standard – rated supplies		
(k1,400,000 – K112,000 – K196,000) x 16%		174,720
Credit notes (K40,000 – K10,000) x 16%		(4,800)
		169,920
Input VAT		
Exempt purchases	0	
Zero – rated purchases	0	
Standard – rated purchases		
(K500,000 – K100,000 – K80,000) x 85% x 16%	43,520	
Entertaining customers	0	
Staff refreshments	0	
Repairs and maintenance (K74,240 x 4/29 x 92%)	9,421	
Irrecoverable debts (K26,680 x 4/29)	3,680	
Telephone expenses	0	
General expenses (K164,720 x 4/29 x 92%)	20,902	
Motor car	0	
Office furniture (K52,200 x 4/29 x 92%)	6,624	
		(84,147)
VAT payable		85,773

Claimable non-attributable input VAT

$$\frac{\text{Taxable supplies}}{\text{Total supplies}} \times 100$$

$$\frac{(K1{,}400{,}000 - K112{,}000)}{K1{,}400{,}000} \times 100$$

$= \underline{92\%}$

(c) The VAT for the month of August 2025 should have been paid not later than 18th September 2025. This means that the VAT was paid late by 27 days.

The penalty for late payment is charged at a rate of 0.5% of the VAT payable per day. i.e., K85,773 x 0.5% x 27 days = K11,579.

The interest on overdue tax is calculated at the rate of 2% plus the BOZ discount rate, i.e. 2% + 10.50% = 12.50%. Interest is therefore; K85,773 x 12.50% x 27/365 = K793.

SOLUTION FIVE

(a) Classification of taxes

(i) Capital taxes
These are taxes charged on capital receipts. Capital receipt is a receipt resulting from disposal of a capital item. An example is property transfer tax.

(ii) Progressive taxes
These are taxes that represent a larger proportion of the person's income. Under progressive taxes, the average rate of taxation increases as the level of income increases. An example is pay as you earn.

(iii) Regressive taxes
These are taxes that represent a smaller proportion of a person's income. Under regressive taxes, the average rate of taxation decreases as the level of income increases. An example is value added tax.

(b) The following are the functions of the customs and excise services division:

(1) Collection and management of customs and excise duties and other duties, licensing and control of warehouses and premises for the manufacturing of certain goods.
(2) Regulation and control of imports and exports
(3) Facilitation of trade, travel and movement of goods
(4) Providing statistical data to the Government on imports and exports.

(c) TKC will be assessed under turnover tax because the annual turnover of the business will be below K5,000,000.

The turnover tax will be charged on the gross monthly turnover without deducting any expenses which will be incurred wholly and exclusively for business purposes and will be due on the 14th day following the end of each month.

The amount of turnover tax arising for the tax year 2025 will be as follows:

	K
Annual turnover	696,000
Turnover Tax	
On first K12,000 x 0%	0
On excess (K696,000 - 12,000) x 5%	34,200
	34,200

Monthly turnover tax is K2,850 (K34,200/12).

(d) Computation of import taxes

	$
Cost	15,200

Insurance costs	1,600	
Transportation costs	2,800	
Incidental costs	1,000	
	20,600	
Exchange rate	K18.20	
VDP in ZMW	374,920	
	K	K
VDP for customs duty	374,920	
Customs duty at 30%	112,476	112,476
	487,396	
Excise duty @30%	146,219	146,219
	633,615	
Import VAT @16%	101,378	101,378
	734,993	
Total import taxes		360,073

END OF SUGGESTED SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA APPLICATION ADVANCED DIPLOMA IN ACCOUNTANCY

CA 2.5: FINANCIAL MANAGEMENT

FRIDAY 13 JUNE 2025

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</u> – (COMPULSORY)

AW Limited, a local company engaged in manufacturing is considering expanding its operations to a neighboring country. The vision of the company is to be the leading manufacturing company in the southern hemisphere. It uses expensive machinery to carry out its manufacturing processes. The company does not have immediate access to large sums of money for capital projects. This is because it is a private company without some of the benefits of a listed company such as easy access to funding. For this reason, it is considering listing its shares in the near future. Management believes that by going public, the company will be able to achieve its vision of being the leading manufacturing company in the southern hemisphere.

The company is considering acquiring a new machine to replace the existing one. AW Limited management believes that it will be cheaper to lease the machine rather than buy it outright. A suitable machine costs K350 million including delivery and installation charges. At a recent meeting held at the company head office some leasing options were considered and the conditions attached to them. The leasing options considered were:

(1) Finance lease

(2) Operating lease.

The lease option would require annual end of year payments of K110 million over the next four (4) years. The interest element of the lease payments is tax-allowable.

The terms of the purchase option are as follows: Service fees of K7 million per annum will be paid at the end of each of the four (4) years. AW Ltd could pay cash for the machine using the bank loan facility on which the current rate of interest is 18% before tax. Depreciation is calculated at 25% per annum using the reducing balance method. AW intends to sale the machine at the end of year four (4) at its book value.

Corporation tax is 30% per annum and it is payable in the year in which profits occur.

Other options of acquiring the machine such as hire purchase option and sale and lease back arrangements are also being considered by the Board of Directors. The Directors are also concerned with the barriers to entry that the company may be faced with as they plan to expand the company operations to the neighboring country.

Required:

(a) Explain the key features of each the following leasing options:

- (i) Finance lease option (4 marks)
- (ii) Operating lease option. (3 marks)
- (iii) Sale and lease back arrangements (3 marks)

(b) Explain any four (4) barriers to entry that AW Ltd may encounter in their bid to expand their operations into a neighboring country. (8 marks)

(c) Determine the after tax cash flows and the Net Present Value of the cash flows under each of the following alternatives being considered by the company.

(i) Leasing (11 marks)

(ii) Owing (9 marks)

(d) Recommend to AW Limited the alternative that should be selected on financial grounds. (2 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt any THREE (3) questions.

QUESTION TWO

(a) In driving the profitability and liquidity position of an organization in the current local and global business environment, one area that has become the center of focus or attention to management is how working capital is managed. Aggressive, Moderate and Conservative policies to working capital management have implications on the profitability and liquidity positions of the organization.

Required:

In the light of the above, explain the impact of each of the policies below on the profitability and liquidity of an organisation.

(i) Aggressive Working Capital Management. (2 marks)

(ii) Moderate Working Capital. (2 marks)

(iii) Conservative Working Capital Management. (2 marks)

(b) Spectra Ltd is an Oil Marketing Company operating in the downstream Part of the Oil and Gas industry in Zambia. The company initially was offering four (4) weeks credit to its retailers until it changed it's strategy to reduce the credit period from four (4) weeks to two (2) weeks to manage its financing cost and bad debt.

Under the four (4) weeks credit regime, an annual credit sale was 500 million liters. The profit made per litre before the financing charge and bad debts was K0.20. The total working capital was K250 m but 50% was funded through trade credit and the remaining 50% was through a bank overdraft at an interest rate of 25% per annum. The cost of trade credit was already factored in the margin. Bad debts were at K 0.01 (one ngwee per litre) of the credit sales.

The change in policy from four (4) weeks to two (2) weeks was done immediately without prior discussion and notice period granted to retailers who were also selling on credit to their customers.

After operating the new credit policy, the volume of sales was negatively impacted as sales volume per annum dropped by 25% and bad debts increased by 100% due to pressure on the working capital of the retailers. As the new Finance Manager for Spectra Ltd, you have been tasked to review this policy.

Required:

(i) Calculate the profit under the old policy. (4 marks)

(ii) Calculate the profit under the new policy. (4 marks)

(iii) Based on your calculations above, advise management whether to revert to the old policy or maintain the new policy. (1 mark)

(c) Holding stock and sometimes over-stocking come at a great cost to a company. Not

Withstanding these costs, it is sometimes necessary to hold stock or even over stock for the smooth running of the company.

Required:

(i) Explain Two (2) reasons for holding stock. (2 marks)

(ii) State and explain three (3) costs associated with holding stocks.

(3 marks)

[Total: 20 Marks]

QUESTION THREE

The Directors of Shanon Ltd, a large corporation, are considering the acquisition of the entire share capital of Haywood Ltd, a private limited company which fabricates a range of engineering products. Neither company has any long-term debt capital. The directors of Shanon Ltd believe that if Haywood Ltd is taken over, the business risk of Shanon Ltd will not be affected.

Haywood Ltd.'s Statement of Financial Position as at 31 December 2022 is expected to be as follows:

	K	K
Property, Plant and Equipment (PPE)		651,600
Current Assets		
Inventory and work-in-progress	515,900	
Debtors	745,000	
Cash at Bank	158,100	
		1,419,000
		2,070,600
Current Liabilities		
Creditors	753,600	
Bank overdraft	862,900	
		(1,616,500)
Total Assets Less Current Liabilities		**454,100**
Capital and Reserves		
Share capital		50,000
Retained earnings		404,100
		454,100

Haywood Ltd's summarized statement of profit or loss extract for the five (5) years to 31 December 2022 is as follows:

Year	**2018**	**2019**	**2020**	**2021**	**2022**
Profit After Tax (PAT) (K)	33,300	66,800	43,300	38,400	52,200
Dividends (K)	(20,500)	(22,600)	(25,000)	(25,000)	(25,000)
Retained Earnings (K)	12,800	44,200	18,300	13,400	27,200

The following additional information is available:

(1) There have been no changes in the issued share capital of Haywood Ltd during the past five (5) years.

(2) The estimated values of Haywood Ltd.'s property, plant and equipment (PPE), inventory and work-in-progress as at 31 December 2022 are:

	Replacement Cost (K)	**Realizable value (K)**
PPE	725,000	450,000
Inventory and work-in-progress	550,000	570,000

(i) It is expected that 2% of Haywood's debtors at 31 December 2022 will be uncollectible.

(ii) The cost of capital of Shanon Ltd is 9%. The directors of Haywood Ltd estimate that the shareholders of Haywood Ltd require a minimum return of 12% per annum from their investment in the company.

(iii) The current P/E ratio of Shanon Ltd is 12. Quoted companies with business activities and profitability similar to those of Haywood Ltd have P/E ratios of approximately 10. However, given that Haywood Ltd is much smaller and unquoted, its PE ratio would be half those of its quoted peers in the worst case.

Required:

Estimate the value of the total equity capital of Haywood Ltd as at 31 December 2022 using each of the following methods:

(a) Book value (2 marks)

(b) Replacement cost (4 marks)

(c) Realizable value (4 marks)

(d) The Gordon growth model (the growth rate should be rounded up) (6 marks)

(e) The P/ E ratio model (4 marks)

[Total: 20 Marks]

QUESTION FOUR

Keembe Meats Plc is quoted on the Lusaka Stock Exchange (LuSE). The following information relates to the company as at 31 December 2021:

Number of ordinary shares	20 million
Book value of 12% preference shares (K15 shares)	K30 million
Book value of 20% bank loan	K5 million
Market price of ordinary shares	K7.50 per share
Equity beta of Keembe Meats Plc	1.3
Risk- free rate of return	14%
Equity risk premium	10%
Rate of taxation	30%

The current price of the preference shares is K10.00 and the dividend has recently been paid.

Required:

(a) Discuss four (4) similarities between the financial objectives of a listed company such as Keembe Meats Plc and the financial objectives of a not-for-profit organization.

(8 marks)

(b) Calculate the gearing ratio (Prior charge capital/(Prior charge capital + Equity)) for Keembe Meats Plc using market values. (4marks)

(c) Calculate the company's weighted average cost of capital (WACC), using market values as weighting factors. (8 marks)

[Total: 20 Marks]

QUESTION FIVE

Mangrove Ltd market value of equity and debt is K250 million and K102 million respectively. The book value of debt and equity is K102 million and K200 million respectively. The equity beta value of the company is 1.1. The cost of debt before tax is 6%.

Information about mangroves dividends and earnings is provided below:

	Per Share	**Annual growth rates**
Dividends	K2.5	5%
Earnings	K7.0	8%

Other Information is as follows:

Market return	16%
Risk free rate	4%
Corporate tax rate	30%

Mangrove is now proposing to invest in a project which would involve diversification into a new industry and the following information is available about a similar company in this industry:

	Book Values km	**Market Values Km**
Equity	190	240
Debt	60	70

The similar company has an equity beta of 0.9.

Mangrove also recently bought shares in three (3) companies in different industries. The risk profile of the investment in the three securities is shown below:

SHARE	**Beta Factor**
FFZ Ltd	1

DXY Ltd	0.5
CFR Ltd	-1.2

Required:

(a) Estimate the cost of capital that the company should use as the discount rate for its proposed investment in the project. (10 marks)

(b) Explain the meaning of the term" beta factor" and interpret the risk of Mangrove's investments in FFZ Ltd, DXY Ltd and CFR Ltd relative to the market. (10 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.

CA 2.5: FINANCIAL MANAGEMENT – SUGGESTED SOLUTIONS

SOLUTION ONE

(a)

(i) Finance Lease option

- (i) The provider of finance is usually a third-party finance house and not the original provider of the equipment.
- (ii) The lessee is responsible for the upkeep servicing and maintenance of the asset.
- (iii) The lease has a primary period which covers all or most of the useful economic life of the asset. At the end of the primary period the lessor would not be able to lease the equipment to someone else because it would be worn out.
- (iv) It is common at the end of the primary period to allow the lessee to continue to lease the asset for an indefinite secondary period, in return for a very low nominal rent, sometimes known as a peppercorn rent.

(ii) Operating lease option

- (i) The lessor supplies equipment to the lessee.
- (ii) The lessor is responsible for servicing and maintenance of the leased asset.
- (iii) The period of the lease is fairly short, less than the expected economic life of the asset so that at the end of the lease agreement, the lessor can either lease the same equipment to someone else and obtain a good rent for it or sell the equipment second hand.

(iii) Sale and lease back

A company which owns its own premises can obtain finance by selling the property to an insurance company or pension fund for immediate cash and renting it back usually for at least 50 years with rent reviews every few years.

A company would make more cash from a sale and lease back agreement than from a mortgage but it should only make such an agreement if it cannot raise sufficient funds any other way.

(b) Barriers to entry

(1) Product differentiation barriers.

An existing major supplier would be able to exploit its position as supplier of an established product that the consumer/ customer can be persuaded to believe is better. AW Ltd would have to design a better product or convince customers of the product qualities and this might involve spending substantial sums of money on research and development, advertising and sales promotion.

(2) Absolute cost barriers

These exist were an existing supplier has access to cheap raw material sources or to know-how that the new entrant would not have. This gives the existing supplier an advantage because its input costs would be cheaper in absolute terms than those of a new entrant.

(3) Economy of scale barriers. These exist were the minimum level of production needed to achieve the greatest economies of scale is at a high level. New entrants into the market like AW Ltd would have to be able to achieve a substantial market share before they could

gain full advantage of potential scale economies, and so the existing firms would be able to produce their output more cheaply.
(4) Fixed costs. The amount of fixed cost that a firm would have to sustain, regardless of its market share could be a significant entry barrier.
(5) Legal barriers. These are barriers were a supplier is fully or partially protected by law. For example there are some legal monopolies (nationalized industries perhaps) and a company's products may be protected by patent (for example computer hardware or software).

(c)
WORKINGS

DF is the after tax cost of borrowing
18* 0.7 = 12.6

Leasing Cost

calculation of interest rate implicit in the lease

IRR Calculation

Year		Cash Flow K000	DF 7%	PV K000	DF 10%	PV K000
0	Purchase cost	(350,000)	1	(350,000)	1	(350,000)
1-4	Lease payments	110,000	3.387	372,570	3.170	348,700
				22,570		(1,300)

IRR= 7% + 22570/(22570+1300) x 3% = 9.83%

opening balance	implicit interest @ 9.838%	End of year debt	Repayment	Closing Balance
K	K	K	K	K
350,000	34,433	384,433	110,000	274,433
274,433	26,999	301,432	110,000	191,432
191,432	18,833	210,265	110,000	100,265
100,265	9864	110,129	110,000	129

(i)

NPV of leasing costs

Year	1	2	3	4
	K 000	K000	K000	K000
Lease payments	(110,000)	(110,000)	(110,000)	(110,000)

Tax savings on implicit interest	10,329.9	8099.7	5649.9	2959.2
Net cash flows	(99,670)	(101900)	(104,350)	(107,041)
Discount Factor @ 13%	0.885	0.783	0.693	0.613
Present Value	(88,208)	(79,788)	(72,314)	(65,616)
NPV	(K305,926)			

(ii)

COST OF OWNING

	Year				
	-	1	2	3	4
	K000	K000	K000	K000	K000
Cash payment	(350,000)				
Service fees-K7mx(1-0.3)		(4,900)	(4,900)	(4,900)	(4,900)
Depreciation tax shield		26,250	19,688	14,766	11,074
Sale at book value					110,742
Net cash flow	(350,000)	21,350	14,788	9,866	116,916
PV Factor @ 13%	1.000	0.885	0.783	0.693	0.543
PV	(350,000)	18,895	11,579	6,837	63,485
NPV	(249,204)				

DEPRECIATION

		k000	Tax shield
Cost		350,000	
Dep yr 1	0	87,500	26,250
NBV		262,500	
Dep yr 2	0	65,625	19,688
NBV		196,875	
Dep yr 3	0	49,219	14,766
NBV		147,656	

Dep yr 4	0	36,914	11,074
		110,742	book value

(d) I recommend the purchase option as it has lower present value costs of K249, 204,000 as compared to K305, 926,000 for the leasing option.

SOLUTION TWO

(a)

(i) Aggressive working capital refers to company using lower levels of cash, stocks and debtors relative to the high level of business activity. The working capital assets are over stretched to cover the high and growing volume of activity.

This sweats the assets better to create more profits but at the expense tight liquidity that might expose the company to liquidity risk.

(ii) Moderate working policy is the middle ground between aggressive and conservative. It provides levels of working capital needed in line with the levels of business activity. It impacts moderates profits and also moderates the liquidity risk.

(iii) Conservative working capital policy is where too much working assets are held relative to the low volume of business activity and could counter to profit generation but provides more than sufficient liquidity levels.

(b)

(i) Old Credit Policy (4 weeks of credit)

Credit sales volume (Liters)	500million
Commission or margin per liter (0.2 Ngwee)	0.2 Ngwee
	K'000
Total profit before interest and Bad debts	100,000
Financing cost (50% x 250m x 25%)	31,250)
Bad Debts (0.01 Ngwee x 500m)	(5,000)
Profit after Financing and Bad debts	63,750

(ii) New Credit Policy (2 weeks of credit)

Credit sales volume (Liters) (75% of 500m)	375 million
Commission or margin per liter (0.2 Ngwee)	0.2 Ngwee
	K'000
Total profit before interest and Bad debts	75,000
Financing cost (50% x 250m x 25%)	(23,437.5)
Bad Debts (0.01 Ngwee x 500m)	(7,500)
Profit after Financing and Bad debts	44,062.5

(iii) Profit made under Old policy

	K
Profit made under Old policy	63,750
Profit under new policy	(44,062.5)
Difference	19,687.5

Decision

Based on the analysis the new policy implemented resulted in profit reduction of K19.68m and the new policy should therefore be reversed immediately.

(c)

(i) Reasons for holding stock

(i) To cater for unexpected spike or increase in demand.
(ii) To maintain existing and loyal customers as stock outs could drive away customers.
(iii) For seasonality purposes for goods that experience spike in demand on seasonal basis.
(iv) To manage the cost of ordering and take advantage of discounts on bulk orders.
(v) Avoid the cost of emergency orders due to stock outs.
(vi) To ensure smooth flow of production process without any hitches.
(vii) Information that market prices are likely to move up and therefore stocking to take advantage of the price increases when they occur to make profit and also preserve working capital.
(viii) Information that there would be shortage of supply in the market.

(ii) Cost of Holding stock

(i) The cost of storage of warehousing.
(ii) Risk of expired and damaged goods.
(iii) Fraud and pilfering risk.
(iv) Stores administration cost.
(v) The cost of insurance.
(vi) Opportunity cost of locked funds in stock.

SOLUTION THREE

(a) Book value = K454,100

(b) Replacement cost value = K454,100 + (K725,000 - K651,600) + (550,000 - K515,900) = K561,600

(c) Realizable value = K454,100 + (K450,000 - K651,600) + (K570,000 - K515,900) – 14,900 = K291, 700

Note: K14, 900 = 2% x K745, 000 (bad debts). Bad debts are assumed not to be of relevance to book and replacement cost values.

(d) Gordon Dividend Growth model value – obviously depends on estimate of growth, which is far from clear given the wide variation in earnings over the five years.

Lowest possible value, assuming zero growth (most prudent estimate):

Value cum div. $= \frac{\text{K}25000}{0.12} + \text{K}25,000 = \underline{\underline{\text{K}233{,}333}}$

It is unlikely that this will be the valuation basis taken.

Alternative:

Value ex div. $= \frac{\text{K}25000}{0.12} = \underline{\text{K}208{,}333}$

Looking at dividend growth over the past five years:

Year	Dividend (K)
2022	25,000
2018	20,500

g(growth rate) $= \left(\frac{25000}{20500}\right)^{\frac{1}{4}} = (1.051 - 1) = 0.051$ say 5% then,

MV cum div $= \frac{Dividend\ in\ 1\ year}{0.12 - \text{g}} = \frac{K25000\ (1.05)}{0.12 - 0.05} + 25000 =$

= K375, 000 +25,000 = 400, 000

Alternative:

Year	Dividend
2022	K25,000
2018	K20,500

g (growth rate) $= \left(\frac{25000}{20500}\right)^{\frac{1}{4}} =$ 1.051 say 5% then,

MV ex div $= \frac{Dividend\ in\ 1\ year}{0.12 - \text{g}} = \frac{K25000\ (1.05)}{0.12 - 0.05} =$ = K375, 000 = K375,000

Alternative Valuation, Using the rb model

Average proportion retained = b =

Year	2018	2019	2020	2021	2022
Retained Earnings	12,800 +	44200 +	18,300+	13,400 +	27,200
Profit After Tax (PAT)	33300 +	66800 +	43,300 +	38,400 +	52,200

$= \dfrac{115{,}900}{234{,}000}$

= 0.495 say, b = 0.5

Then g = 0.5 x 12% = 6%

So MV cum div = $\frac{K25000(1.06)}{0.06}$ = <u>K441, 666.67+25, 000 = 466, 666.67</u>

Alternative:

So MV ex div = $\frac{K25000\ (1.06)}{0.06}$ = <u>K441, 666.67</u>

(e) P / E ratio model

Comparable quoted companies to Shanon Ltd have PE ratio of 10. Shanon Ltd is much smaller and being unquoted its PE would be less than 10, but how much less?

As a worst case, we take a PE of half of 10 = 5: MV = K52, 200 x 5 = <u>K261, 000</u>

In the best case, we should take a PE of 10 (maximum possible), MV = <u>K522, 000</u>

SOLUTION FOUR

(a)

A key financial objective for a stock exchange listed company like Keembe Meats Plc is to maximize the wealth of shareholders. This objective can also be translated as maximizing the company's total shareholder return, which is the increase in the share price or capital gain and dividends paid. Shareholder wealth is also achieved through maximization of the present value of future dividends.

(i) The market value (market capitalization) of Keembe Meats Plc is equal to the number of issued shares multiplied by the share price. Maximizing the company's share price is therefore the same as maximizing the equity market value of the company. Maximizing the market value of a company can be achieved by maximizing its cash income and the expected growth in that income, while minimizing its cost of capital. Listed companies therefore have maximizing net cash income as a key financial objective.

(ii) Not-for-profit (NFP) organizations require cash resources when providing their services to the public. They therefore seek to maximize their cash income as is the case with listed companies. Maximizing net cash income is therefore a key financial objective for NFP organizations as well as listed companies. NFPs seek to raise as much funds as possible in order to achieve their charitable objectives, which are non-financial in nature.

Both listed companies and NFP organisations are constrained by budgets, since they need to control the use of their limited cash resources. A common key financial objective for both organizations is therefore to spend within their budgets.

(iii) An appropriate objective for NFP organizations is value for money (VFM). This means maximizing benefits for the lowest possible cost, and is similar to the concept of profit maximization except that society's interests are being maximized as opposed to profit. Achieving value for money requires the application of economy, effectiveness and efficiency or the three Es. Economy refers to achieving a certain level of outputs with at lowest cost. Efficiency is the relationship between inputs and outputs. Effectiveness is the extent to which organizational goals are achieved.

(iv) A definition of the three Es clearly shows that a listed company like Keembe Meats Plc also seeks to achieve value for money in their business operations. The difference lies in how they achieve them. A listed company has a profit motive, and so VFM for a listed company can be related to performance measures linked to maximizing the equity market value of the company. On the Other hand NFPs have service-related outputs that are difficult to measure in quantitative terms and so they emphasize performance measures linked to minimizing input costs for given levels of outputs.
In managing their performance, both listed companies and NFP organizations can use accounting ratios such as a target return on capital employed, a target level of income per employee, or a target current ratio.

(b)

	Market value
Prior charge capital includes:	K' million
20% bank loan @ book value	5
12% preference shares @ K10 per K15	20
Total	25
Equity:	
20 million Ordinary shares @ K7.50	150
Grand Total	175

Gearing = (25/25+150) = <u>14.3%</u>

(C)

Ke = Rf + (Rm-Rf)β = 14 +1.3 (10) = <u>27%</u>

Cost of bank loan = 20% (1- 0.30) = <u>14%</u>

Cost of preference shares = [1.80/10 X 100] = <u>18%</u>

WACC = (27% X 150) + (14% X 5) + (18% X 20)/175)) = <u>25.6%</u>

SOLUTIONS FIVE

(a)
The equity beta of a similar sized company in the industry that mangrove wants to move into is 0.9. Gearing of the similar company is debt K70m and equity K240m. (market values)

The beta needs to be adjusted for differences in gearing.

Asset beta = Equity beta x Ve / [Ve + Vd (1-t)]

Asset beta = 0.9 x 240/[240 + 70 (1-0.3)]

= 0.74

Regear the asset beta using mangrove's gearing.

Equity beta = Bu x [Ve + Vd (1-t)] / Ve

Equity beta = 0.74 x (250 + 102 (1-0.3))/ 250

= 0.95

Using this in the capital asset pricing model:

Ke = Rf + Beta (Rm-Rf)

Ke = 4% + 0.95 (16% - 4%)

Ke = 4% + 0.95 x 12%

Ke = 15.4%

Weighted Average Cost of Capital (WACC)

WACC= (15.4% * 250/352) + (6% 0.7 * 102/352) =

WACC= 10.93+ 1.21 = 12.14%

(b)
The beta factor is the measure of the systematic risk of a security relative to the market portfolio. Market or systematic risk is risk that cannot be diversified away. For example changes in inflation and changes in interest rates.
If a share price was to rise or fall at double the market rate it would have a beta factor of 2. Conversely if the share price moved at half the market rate, the beta factor would be 0.5. The market beta = 1.

Interpretation of relative risk of each share.

(1) The share of FFZ have a beta of 1 which is the same as the market beta, this means that its relative risk is the same as the average market risk. If average market prices of shares rise by 10% its share price will also rise by 10%.
(2) The share of DXY Ltd has a beta of 0.5. This is half of the market beta. The DXY shares are less sensitive than the market. If average market prices of shares were to rise by 10% its share price would rise by 5% (half of the market)

(3) The shares of CFR Ltd have a beta of -1.2. A negative beta means that it is moving in the opposite direction to the market. When the average market prices of shares rise, its prices will fall. For example if the average market prices of shares rise by 10%, its shares would fall by 12%.

END OF SUGGESTED SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA APPLICATION ADVANCED DIPLOMA IN ACCOUNTANCY

CA 2.6 STRATEGIC BUSINESS ANALYSIS

WEDNESDAY 11 JUNE 2025

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</u> – (COMPULSORY)

PREMIUM: Creating the New Corporate Responsibility (CR) Metrics

A global leader in the insurance and asset management business, PREMIUM had risen to the top ranks in terms of corporate responsibility (CR) as well. In 2014, the French-based insurer led the industry on a number of corporate social responsibility and sustainability indexes. Not content to rest on these laurels, PREMIUM transferred its CR team from the department that included the Communications function to a newly created department combining the Strategy, CR, and Public Affairs functions together, to further integrate CR into the core of the business.

PREMIUM's business had grown rapidly over the previous decades. The company was formed in the 1980s through the merger of a few medium size French insurance firms. From the beginning, PREMIUM's CEO Claude Bébéar aspired to build the first global insurance brand. The company made a series of acquisitions in the 1990s, including companies in the United States, Europe, Africa, and Asia. PREMIUM was hailed in the business press for savvy deal-making. The company took over struggling franchises and utilizing its strong balance sheet, technical expertise and abilities in product innovation, managed to turn around their acquisitions. Over time, PREMIUM also branded the companies under the PREMIUM banner, assembling a global brand piece by piece. While Henri de Castries replaced Bébéar as CEO in 2000 and the company faced economic headwinds, PREMIUM continued to produce strong returns.

In 2010, the company announced *Ambition PREMIUM,* a five-year strategic plan to grow the company. The plan called for harvesting slow-growing businesses in mature markets, investing in emerging markets, and reducing the company's overall cost of operations. Under the strategy, PREMIUM made significant acquisitions and deals in Asia, Africa and Latin America. The company became the leading foreign insurance provider in China and a player in the Indian market. By 2014, PREMIUM employed 157,000 people across the globe, serviced over 100 million clients, enjoyed a €50 billion market cap, and managed over €1,000 billion in assets. According to Interbrand, PREMIUM was the leading global brand name in insurance, and also the leading "green" insurance brand.

Throughout its growth, PREMIUM's leadership had maintained an interest in corporate social responsibility, and many PREMIUM employees believed that CR was in the DNA of the organization. During 1980s, Bébéar set up a number of organizations to bring business leaders together to tackle social problems and engage in philanthropy. Inside PREMIUM in 1990, the company created PREMIUM Atout Coeur ("Hearts in Action") to encourage and support community engagement by employees, and in 2001 it established the Group's first "sustainable development" function.

But it wasn't until 2008 that the company created a formal CR strategy. Following an internal study that argued that corporate responsibility was a key strategic area for the company to pursue, PREMIUM's first global CR action plan was launched. Under the direction of Alice Steenland, PREMIUM's CR team created a proprietary CR metric for the company, which was adapted for each of the company's major operating activities. This metric allowed PREMIUM leadership to assess the company's CR work and provided a framework for individual units to formulate their own CR goals. The CR team's work also helped PREMIUM become more visible within the larger CR community and led to the company's success on ratings metrics constructed by various outside organizations.

In September of 2014, the CR team's success led PREMIUM leadership to transfer it from the department that included the Communications function to the department comprised of the Strategy and Public Affairs functions. This new integrated department was baptized "Strategy, Sustainability, and Public Affairs." The reorganization inspired a reconsideration of how PREMIUM monitored and measured its CR efforts. The metrics Steenland and her group had constructed were adapted from outside ratings agencies, notably using the Dow Jones Sustainability Index methodology created for investors. As part of the company's strategy apparatus, Steenland and her team were now looking to create new CR metrics that tied CR work more closely to PREMIUM's operations and growth. To do so, Steenland would have to identify CR issues of particular concern to the company, examine how addressing these CR issues would add value to the company (e.g. by fostering innovation, by reducing costs), and then create metrics that would capture a business unit's success or failure in addressing the CR issue.

Creating new metrics was a tall order, but would be another step to establishing CR inside PREMIUM. Eventually, the company aspired to produce an "integrated report" that would define the Group's next strategy for the 2020 time horizon, measured by a set of metrics reflecting in an integrated way the financial, but also the social and environmental, value created by the company.

Adopted from: Jaan Elias, Jean Rosenthal, Todd Cort, David Bach, and Greg MacDonald, "PREMIUM: Creating the New CR Metrics,"

Required:

(a) Analyze Five (5) corporate social responsibilities strategy adopted by Premium Insurance Company (15 marks)

(b) Discuss five (5) merits of corporate responsibility which made the REMIUM insurance Company to grow. (15 marks)

(c) Institutional investors such as Pension funds, Insurance companies and Venture capital organization fulfill desirable roles in the financial industry. However, they also have undesirable consequences as well.

Required:

Discuss five (5) challenges in managing these businesses. (10 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this Section.

Attempt any THREE (3) questions.

QUESTION TWO

Kasama Coffee Limited, is an agriculture-based company that has solely been involved in the production and processing of coffee beans from its 400 hectares' plantation over the past fifteen (15) years. Although the area receives good rainfall supplemented by irrigation of water from the Chambeshi River and to a large extent the amount of product processed has been good enough to sustain its operation, the sales have not been encouraging. The poor sales have been attributed to many constraints and chief among them is the poor price on the international market. Management has therefore decided to diversify into the sugar cane growing and processing which is completely unrelated Conglomerate diversification.

Required:

(a) Describe any three (3) potential advantages that this unrelated conglomerate diversification would bring to the operations of Kasama Coffee Limited. (9 marks)

(b) Conversely, justify any three (3) disadvantages of this type of diversification to the company. (9 marks)

(c) In two (2) brief sentences, explain why this change of decision may have an impact on workforce of the company. (2 marks)

[Total: 20 Marks]

QUESTION THREE

Trade kings Group does everything possible in order to keep the sustainable advantage it enjoys as a company in its business. Its products are different and valued by customers and it is managing to lock-in for the business to flourish even more. It is also amazing to note that the company aims at satisfying different customer segments. The management has made it as a policy that every employee understands the corporate mission and values.

Required:

(a) Define the term lock- in in industry competition as proposed by Hax and Wilde (1999) (4 marks)

(b) Mention five (5) customer segmentation bases being used by Trade Kings to satisfy its customers (10 marks)

(c) Give three (3) reasons why business should have a serious consideration to establish a clear concept of its corporate mission and values (6 marks)

[Total: 20 Marks]

QUESTION FOUR

Chilanga holdings limited a diversified company, has been in business for over thirty years in Zambia. In light of recent developments in the business environment, the Board of Directors and its Management has seriously decided to review its mission and review its strategic direction of its group of companies. The Managing Director has requested you as manager for strategy direction to come up with a write up in this regard.

Required:

(a) Defend with three (3) reasons why Chilanga holdings limited should consider establishing a clear concept of its mission and values in light of change in the business environment.

(6 marks)

(b) This change must include the clear thinking of the members of the board of Directors. In achieving this, support the four (4) moral attributes that individual directors should have as proposed by the King report of 1994. (8 marks)

(c) Argue out the three (3) roles of a mission in the strategic planning Process that would have a serious impact on strategy implementation if management did not consider it in its earlier planning. (6 marks)

[Total: 20 Marks]

QUESTION FIVE

(a) With the help of a diagram, discuss how the Ansoff matrix impacts on Business Positioning Strategy. (12 marks)

(b) A newly recruited employee has just seen the Mission Statement, Vision Statement, Values Statement and the Motto of the company displayed at the Reception. For a while he thought they were just motivational captions hanging by the Reception. During a staff briefing, he asks about them.

Required:

Explain to staff the importance of Mission Statement and the Value Statement to the organization's Corporate Strategy. (8 marks)

[Total: 20 Marks]

END OF PAPER

CA 2.6 STRATEGIC BUSINESS ANALYSIS - SUGGESTED SOLUTIONS

SOLUTION ONE

(a) Analyze some of the corporate social responsibilities strategy adopted by PREMIUM insurance company

- (i) The company created a corporate social responsibility Metric to allow leaders to assess the companies CR work and provide framework for individual units.
- (ii) The CR team was formed and it included the Public Affairs functions for effective communications
- (iii) A number of organizations brought together to take social problems
- (iv) In 1990 the company created the "Hearts of Action" to encourage and support community engagement by employees
- (v) In 2001 the company established the group's first sustainable development function towards CR.

(b) Discuss some of the merits which of corporate responsibility which made the PREMIUM Company to grow.

There are a number of reasons why a corporate social responsibility can be beneficial to the business

- (i) Increasing Customer expectation and other stakeholders that the business will act in a socially responsible manner. This makes customers to buy from a responsible source.
- (ii) Brand name- businesses that are seen to be socially responsible build their brand reputation and this increases their sales
- (iii) Trading opportunities- firms that have a good CR creates increasing trading partners or support from locals
- (iv) Access to staff- the way the firms perceived to be treating their employees may affect their ability to attract staff. A firm that retains quality staff may be able to have competitive strategy.
- (v) Investment and Funding- a firm's reputation may affect its ability to access funds or attract financing.
- (vi) Sustainable Business- many firms with good CR operates for longer years in business that those with no or less CR concerns.

(c) Institutional investors such as Pension funds, Insurance companies and Venture capital organization fulfil desirable roles in the financial industry. However, they also have undesirable consequences as well. Discuss some of the challenges in managing these businesses.

(i) Excessive market influence:

A competitive capital market should not have any one investor with a bigger market share to influence the prices

(ii) Playing safe:

Many institutions tend to avoid shares which seen to be speculative as they feel they have a duty to their customer to invest in blue chip shares.

(iii) Short-term speculation:

Fund managers usually seek short term speculative gains. However, institutional investors have become so influential that they are less able to divest from companies without suffering a substantial loss in order to liquidate their holdings.

(iv) Lack of power of investors:

Investors in investment and pension funds cannot directly influence the policy of companies in which their funds invest, since they do not hold shares themselves and cannot hold the company accountable at general meetings.

(v) Information Cost:

Managers use a lot of different sources of information, their agency cost becomes higher in total because they have to track the performance of all investments that the funds make.

SOLUTION TWO

(a) Potential advantages of conglomerate diversification include:

- (i) Risk spreading. Entering new products into a new market can compensate for the failure of current products and market.
- (ii) Improved profit opportunities. An improvement of the overall profitability and flexibility of the firm may arise through acquisition in industries with better prospects that those of the acquiring firm.
- (iii) Escape from a declining market.
- (iv) Use company's image and reputation in one market to develop into another where corporate image and reputation could be vital ingredient for success.

(b) Potential disadvantages of conglomerate diversification will include:

- (i) The dilution of shareholders' earnings if diversification is into growth industries with high profit/earnings ratios.
- (ii) Lack of a common identity and purpose in a conglomerate organization. A conglomerate will only be successful if it has a high quality of management and financial ability at central headquarters, where the diverse operations are brought together.
- (iii) Failure in one of businesses will drag down the rest, as it eats up resources.
- (iv) Lack of management experience. The company may not have much management experience in areas of this diversification to reap the desired benefit to the holding company.

(c) This new decision to diversify will have the following impact on existing workforce:

- (i) Anxiety on its success
- (ii) Non-of them may have requires skill in new business
- (iii) Opposition from the labour union
- (iv) No readily available appropriate clothing and tools.

SOLUTION THREE

(a) The term lock – is achieved in a market when a company's products become the industry standard and direct competitors are reduced to minor niches and compatibility with the industry standard becomes a prerequisite for complementary products.

(b) Some of the customer segmentation bases being used by Trade Kings to satisfy its customers.

(i) Geography- location of the customers
(ii) Social economic group-social class
(iii) Stage in the family cycle
(iv) Level of education
(v) Personal wealth
(vi) Life style

(vii)Behavior based on their attitude to and use of products, and the benefit they expect to receive

(c) The following are the reasons for the serious considerations to the establishment of a clear concept of the organizations cooperate mission and values:

(i) Values -should be acknowledge as the integral elements to consumer's buyer decisions, by paying attention to adverts brand building and market research. These are important considerations because customers don't only ask what you sell but what you stand for as an organization as well.
(ii) That people are motivated by many things other than money.
(iii) That there is an empirical relationship between strong corporate values and profitability.

SOLUTION FOUR

(a) Three reasons why a business should consider establishing a clear concept of its corporate mission and values.

(i) Values are acknowledged as integral elements of consumers' buying decisions; this is shown by the attention paid to them in adverting, brand building and market research Customers ask not only" What do you sell?" but "What do you stand for?"

(ii) Studies into organisational behaviour show that people are motivated by many things other than money; employees are likely to be both more productive and more satisfied with their work when they feel that what they are doing has significance beyond the mere pursuit of a living.

(iii) Some writers believe there is an empirical relationship between strong corporate values and profitability.

(b) The board of directors play a very significant role in the achieving of corporate mission and values of an organisation. In achieving this, the King report list five (5) moral attributes that individual directors should have. These include the following:

(i) Conscience – acting within intellectual honestly and independence of mind in the best interest of the company and its stakeholders, avoiding conflict of interest.

(ii) Inclusivity - taking into account the legitimate interests and expectations of stakeholders

(iii) Competence – having the knowledge and skills required to govern a company effectively

(iv) Commitment – diligently performing duties and devoting enough time to company affairs

(v) Courage – having the courage to take the necessary risks and to act with integrity. 4 of the 5 attributes are required.

(c) The three roles of a mission in the strategic planning Process that would have a serious impact on strategy implementation if management did not consider in its earlier planning, include the following:

(i) Inspires and informs planning. Plans should further the organisation's goals and be consistent with its core values.

(ii) Screening. Missions act as a yardstick by which plans are judged.

(iii) Implementation of planned strategy. Missions also affects the implementation of a planned strategy in terms of of ways in which the firms carry out its business and the culture of the organisation.

SOLUTION FIVE

(a) The Ansoff Matrix

A company can develop its strategic positioning in four ways:

(i) Market penetration- By developing current activities the company tries to strengthen the position that its products have in current markets.

(ii) Market development- Market expansion is a way to develop strategic positioning where new markets are sought for current products, either by finding new customer groups or by finding new market areas.

(iii) Product development- Product expansion is a way to develop strategic positioning by offering new products and/or significantly improved current products to current markets.

(iv) Diversification-- means moving into new business areas, usually by buying companies from areas or fields with better growth possibilities.

Ansoff Matrix

	Existing product	New product
Existing market	Market penetration Increase sales to the existing market Penetrate more deeply into the existing market	Product development New product developed for existing markets
New market	Market development Existing products sold to new markets	Diversification New products sold in new markets

(b) Importance of the Mission Statement and Values

(i) Mission Statement

This is a formal statement that states an organisation's Mission. They are published within the organisation to promote desired behaviour; support for strategy and purpose; adherence to ccore values and adoption of policies and standards of behaviour. A Mission statement:

(i) Inspires and informs planning- plans should further the goals of the organisation and be consistent with core values

(ii) Screening-Mission statements act as yardsticks by which plans are judged

(iii) They also affect the implementations of the organisation's strategy in terms of how the organisation carres out its business and the culture of the organisation.

(ii) Values

Value – a value is "a belief in action," which means a decision is made about what is good or bad, important or unimportant. Every organization has values, realized or not, and values guide the operations of organizations.

Values are acknoowledge as an integral element of the consumer buying decisions. This is shown by the attention paid to them in advertising, brand building and market research. Customers ask not only " What do you sell?" but also "What do you stand for?" people are motivated by many things other than money. Employees are likely to be motivated to be more productive and more satisfied with their work when they feel that what they are doing has significance beyond the mere pursuit of a living.

The values of an organization are usually based on those of top management. Values should be documented, consistent, practiced and honored; otherwise, the organization is in danger of managers following only their personal values. Values can be said to reflect the sense of identity of an organization. They should be clear, simple, direct and easy to understand.

END OF SUGGESTED SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA 3.1: ADVANCED FINANCIAL REPORTING

MONDAY 9 JUNE 2025

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)

Chibeza Plc (Chibeza) is a manufacturing entity that has expanded its activities through acquisition of other entities. The company and its subsidiaries are based in Zambia with Kwacha as their functional currency.

The draft statements of profit or loss and other comprehensive income for Chibeza Plc and its investees Munaka Plc (Munaka) and Ituba Plc (Ituba) for the year ended 31 December 2024 are presented below:

	Chibeza	**Munaka**	**Ituba**
	K'm	**K'm**	**K'm**
Revenue	1,050	850	725
Cost of sales	(545)	(375)	(350)
Gross profit	505	475	375
Distribution costs	(105)	(85)	(73)
Administrative expenses	(220)	(175)	(150)
Operating profit	180	215	152
Investment income	135	0	0
Finance costs	(80)	(50)	(65)
Profit before tax	235	165	87
Income tax expense	(75)	(45)	(70)
Profit for the year	160	120	17
Other comprehensive income			
Revaluation of property	108	48	0
OCI for the year	108	48	0
Total comprehensive income	268	168	163

Further information:

(1) Chibeza acquired 80% of Munaka Plc's (Munaka) equity interests on 1 January 2015 for cash consideration amounting to K560 million. The retained earnings and other reserves of Munaka at that date were K250 million and K210 million respectively. The fair value of the identifiable net assets of Munaka on 1 January 2015 was K580 million. Any difference between the fair value and carrying amount of the identifiable net assets was attributable to an item of plant which had a remaining useful economic life at that date of ten (10) years. All depreciation on plant is presented within cost of sales. Fair value adjustments have not been incorporated in the subsidiary's financial statements.

The Chibeza group uses the full goodwill method in measuring non-controlling interests in Munaka. The fair value of a 20% holding in Munaka on 1 Janauary 2015 was K140 million. At 31 December 2024, 25% of the goodwill on acquisition of Munaka was impaired.

(2) On 1 April 2024, Chibeza disposed of a 15% holding in Munaka for cash proceeds amounting to K200 million. This transaction is not reflected in Chibeza's draft statement of profit or loss and other comprehensive income above.

The remaining holding in Munaka after the disposal had a fair value on 1 April 2024 amounting to K870 million.

(3) Chibeza acquired 60% of Ituba Plc (Ituba) on 1 January 2020 for cash consideration amounting to K420 million. The retained earnings and other reserves of Ituba at that date were K295 million and K215 million respectively. The fair value of the identifiable net assets of Ituba on 1 January 2020 was K626 million. Any difference between the fair value and carrying amount of the identifiable net assets was attributable to an item of plant which had a remaining useful economic life at that date of eight (8) years. All depreciation on plant is presented within cost of sales. Fair value adjustments have not been incorporated in the subsidiary's financial statements.

The Chibeza group measured goodwill on acquisition of Ituba using the proportionate goodwill method. The fair value of a 40% holding in Ituba on 1 January 2020 was K280 million. An impairment review of Ituba as a cash generating unit at 31 December 2023 showed that goodwill on acquisition of Ituba had been impaired by 30%. There had been no goodwill impairment in Ituba prior to 1 January 2023.

(4) On 1 July 2024, Chibeza disposed of a 25% holding in Ituba for cash proceeds amounting to K280 million. This transaction is not reflected in Chibeza's draft statement of profit or loss and other comprehensive income above.

The remaining holding in Ituba after the disposal had a fair value on 1 July 2024 amounting to K392 million. Though the directors have concluded that the disposal of shares in Ituba constitutes a discontinued operation in accordance with IFRS 5 non-current assets held for sale and discontinued operations, Chibeza is able to exercise significant influence after the disposal.

(5) An extract from the companies' draft statements of financial position as at 31 December 2024 shows the following in respect of equity:

	Chibeza	**Munaka**	**Ituba**
	K'm	K'm	K'm
Share capital (K1 share)	200	100	100
Retained earnings	810	450	535
Other reserves	406	280	285
	1,416	830	920

(6) On 1 September 2024, Munaka agreed to acquire an item of plant from a supplier. The agreement required Munaka to settle for the plant by paying an amount of cash equal to the fair value of 3 million K1 Munaka shares on the settlement date. The plant was delivered on 1 October 2024 and was immediately brought into use. The plant has an estimated total life of five (5) years with a nil residual value. Munaka has not yet settled the amount payable in respect of the plant.

The following are fair values of the plant and each Munaka K1 share:

Date	Fair value of the plant	Fair value of each share
1 September 2024	K1.5 million	K2.00
1 October 2024	K2.8 million	K2.30
31 December 2024	K2.4 million	K2.35

No entries have been recorded in Munaka's draft financial statements in respect of this transaction.

(7) On 1 January 2024, Chibeza entered into an arrangement with a South African entity in which the two entities incorporated a separate legal entity Synergy (Pvt) Limited to be based in the RSA. Synergy undertakes freight operations within the Southern Africa region. Synergy was incorporated on 1 January 2024 with an initial equity capital of ZAR (South African Rand) 20 million to which Chibeza contributed 50% with the South African partner contributing the remainder. Chibeza and the South African partner have joint control of Synergy.

The following is an extract from Synergy's results for the year to 31 December 2024:

	ZAR'm
Operating profit	65
Finance costs	(5)
Profit before Tax	60
Income Tax Expense	(8)
Profit for the Financial Year	52

Synergy does not have other comprehensive income for the year to 31 December 2024. It paid a dividend amounting to ZAR30 million on 31 December 2024. Chibeza's share of the dividend has been reported as investment income in its draft profit or loss.

Spot exchange rates between Kwacha and ZAR have moved as follows:

Date	**Rate (Kwacha/ZAR)**
1 January 2024	1.2
31 December 2024	1.4
Average for the year ended 31 December 2024	1.35

The functional currency of Synergy is ZAR.

(8) The income tax rate applicable to Chibeza and its subsidiaries is 30% whilst the rate applicable Synergy is 40%.

Required:

Prepare the Chibeza Plc Group Consolidated statement of profit or loss and other comprehensive income for the year to 31 December 2024 ***incorporating the deferred tax effects of transaction (7) if any.***

[Total 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt ANY THREE (3) questions.

QUESTION TWO

You are the Finance Director of Shark Plc (Shark), a company that specializes in climate smart technologies. Shark has three (3) cash-generation units (CGUs). Goodwill is a significant component of total assets.

In finalising financial statements for the year to 31 December 2023, the following issues have been brought to your attention for which you need to have an input:

(a) An assessment of accounting practices for asset impairment is especially important in the context of financial reporting quality in that it requires the exercise of considerable management judgement and reporting discretion. During times of economic uncertainty, the need for companies to prudently and timely reflect loss in economic values of assets by way of write-down is important to ensure faithful representation of the entity's affairs.

Market capitalization of the entity, changes in circumstances in the reporting period, the allocation of goodwill to cash-generating units, valuation issues and nature of disclosures are some of the many factors which affect the quality of impairment accounting and disclosures.

Required:

Discuss the importance and significance of the above factors when conducting an impairment test under IAS 36 Impairment of assets. (15 marks)

(b) Shark performed an impairment test of the CGUs. The cash flow projections were based on the most recent financial budgets approved by management. The realized net cash flows for the CGUs were negative in 2023 and lower than budgeted cash flows for that period. Directors had significantly overestimated cash flow forecasts for 2024 with little justification. The projected cash flows were calculated by adding back depreciation charges to the budgeted result for the period with expected changes in working capital and capital expenditure not considered.

Required:

Discuss the acceptability of the above accounting practices under IAS 36 Impairment of assets. (5 marks)

[Total: 20 Marks]

QUESTION THREE

The definition of a financial instrument captures a wide variety of assets and liabilities including cash, evidence of an ownership interest in an entity, or a contractual right to receive or deliver cash or another financial instrument. Preparers, auditors and users of financial statements have found the requirements for reporting financial assets and financial liabilities to be very complex, problematic and sometimes subjective.

It is important that a standard in this area should allow users to understand the economic substance of the transaction. Preparers of financial statements, too, should properly apply generally accepted accounting principles when reporting financial assets and financial liabilities.

Required:

(a) Discuss, from the perspective of preparers and users of financial statements, how the measurement of financial instruments under International Financial Reporting Standards can create confusion and complexity. (10 marks)

(b) Set out the reasons why using fair value to measure all financial instruments may result in less complexity in accounting for financial instruments but may lead to uncertainty in financial statements. (10 marks)

[Total: 20 Marks]

QUESTION FOUR

You are a manager at Mulos, a firm of Chartered Accountants. It is your responsibility to ensure that, in preparing financial statements for a range of clients, the accounting treatment required by the IFRS framework has been correctly applied. Sometimes, you are required to review accounting treatment adopted by clients in preparing their financial statements.

The following issues have been brought to attention:

(a) **Lion plc**

Directors of Lion plc are reviewing their company's performance and cash flows, both of which do not look good. As such, they are planning to dispose of some surplus machinery and small investments that are no longer considered core to the business. They plan to include proceeds from sale of the property, plant and equipment and the sale of investments in equity instruments in 'cash generated from operations'. Directors are concerned about the importance of meeting targets to ensure job security and feel that this treatment for the proceeds would enhance the 'cash health' of the business.

Required:

Discuss the ethical responsibility of Lion Plc's Chief Financial Officer in ensuring that manipulation of the statement of cash flows, such as that suggested by the Directors, does not occur. (6 marks)

(b) **Fox plc**

Fox Plc is a local company that has both equity and debt interests in a foreign company, Dog Ltd. As a way of assisting Dog Ltd, its foreign subsidiary, with financing, Fox gave out a loan to Dog Ltd denominated in Dog's local currency. Fox plc is expected to report this loan in their financial statements using Fox plc's home currency.

The Directors of Fox plc are not fully aware of the requirements of IAS 21. The Effects of Changes in Foreign Exchange Rates in relation to exchange differences. They seek advice on how exchange differences should be recorded on both monetary and non-monetary assets in the financial statements of different entities and how these differ from the requirements for the translation of a foreign entity.

The Directors also seek advice on what would happen to the exchange differences if Fox Plc were to sell all its equity shares in Dog Ltd, and any practical issues which would arise on monitoring exchange differences if the balance on the loan from Fox Plc to Dog Ltd was not repaid.

Required:

Advise the Directors of Fox Plc on the correct accounting treatment of the various issues raised. (9 marks)

(c) **Hyena Ltd**

Hyena Ltd, a company supplying oil products globally, has debt covenants attached to some of the loan balances included within liabilities on its statement of financial position. The covenants create a legal obligation to repay the debt in full if Hyena fails to maintain a liquidty ratio and operating profit margin above a specified minimum.

The Directors are considering a new five-year leasing arrangement but are concerned about the negative impact which any potential lease obligations may have on these covenants. If they proceed, they are preparing the lease agreement in such a way that it is a series of six ten-month leases rather than a single five-year lease to utilize the short-term lease exemption under IFRS 16 Leases.

It would then account for the lease in accordance with their legal form. The Directors believe that this would meet the requirements of the debt covenant, though they are aware that the proposed treatment may be contrary to accounting standards.

Required:

Discuss the ethical issues which arise from the proposal by Hyena Ltd. (5 marks)

[Total: 20 Marks]

QUESTION FIVE

Mizyu Plc is a parent entity of a manufacturing group of companies. The group operates in a market environment where products have attained the maturity stage in their life cycles. As a result Mizyu Plc seeks to pursue growth through a strategy of acquisitions.

The company has identified two potential acquisition targets, Sibajene Ltd (Sibajene) and Mapenzi Ltd (Mapenzi), with a view to acquire one of them. The two (2) entities are also in the manufacturing sector though with some differences in their accounting policies.

Mizyu Plc has gathered extracts from unaudited financial statements of the two (2) companies for the year to 31 December 2023 and related information as shown below:

SUMMARISED STATEMENTS OF FINANCIAL POSITION AS AT 31 DECEMBER 2023:

	Sibajene	**Mapenzi**
	K'000	K'000
ASSETS		
Non-current assets		
Property plant and equipment (note (1)	65,200	48,200
Financial asset: equity investments (note 2)	9,000	14,000
	74,200	62,200
Current assets		
Inventory	10,800	14,400
Trade receivables	7,000	7,400
Bank	-	2,800
	17,800	24,600
Total assets	92,000	86,800
EQUITY AND LIABILITIES		
Equity		
Equity shares of K1 each (note (note 3)	23,000	23,200
Share premium (note (3))	5,000	4,000
Revaluation reserve (note (3)	4,000	
Retained earnings	26,000	20,200
	58,000	47,400
Non-current liabilities		
Bank loans		13,800
Deferred tax	12,600	1,800
Current liabilities		
Tax	6,000	6,400
Bank overdraft	5,800	-
Provision for product warranties	3,200	
Bank loans		8,200
Trade payables	6,400	9,200
Total liabilities	34,000	39,400

Total equity and liabilities	92,000	86,800

SUMMARISED STATEMENT OF PROFIT OR LOSS FOR THE YEAR ENDED 31 DECEMBER 2023:

	Sibajene	Mapenzi
	K'000	K'000
Revenue	117,000	82,000
Cost of sales	(93,000)	(60,000)
Gross profit	24,000	22,000
Operating expenses	(17,400)	(9,000)
Investment income (note (2)	2,200	1,400
Finance cost	(1,000)	(400)
Profit before tax	7,800	14,000
Income tax expense	(1,000)	(3,600)
Profit for the year	6,800	10,400

The following additional information is available:

(1) On 1 January 2022, Sibajene commenced a 4 year lease of office premises from a third party, Handie Ltd. The agreed annual rent of K12 million is payable on 31 December each year over the lease term. The rental payments to date have been charged as expenses in profit or loss for the periods in which the payments were made. The interest rate implicit in the lease is 10%.

(2) Sibajene has a policy of revaluing its properties whilst Mapenzi uses the IAS 16 Cost Model in measuring all its property plant and equipment. The only property owned by Mapenzi is a building which was acquired on 1 January 2022 at a cost of K25 million and is used for administrative purposes. The building has an estimated total useful economic life of fifty (50) years with a nil residual value. The building's fair value was K24.8 million at 31 December 2022 and K23 million at 31 December 2023.

Mizyu measures all its properties using the IAS 16 revaluation model and undertakes financial analyses on that basis.

(3) Sibajene uses the weighted average basis of inventory valuation whereas Mapenzi uses the FIFO basis. Mizyu measures its inventory on FIFO basis and undertakes financial analyses on that basis.

The following information relates to amounts at which Sibajene's inventory is measured using the weighted average basis and the FIFO basis:

Date	Weighted Average	FIFO

(31 December)	K'000	K'000
2023	9,200	8,900
2022	8,600	8,100

(4) Mapenzi uses a warehouse property for storage of finished production which is owned by its major shareholder rent free since 1 January 2023. The major shareholder would normally let out this property at an annual rent of K10 million on three year lease, payable annually in arrears. Mapenzi's incremental borrowing rate is 10%.

(5) Any adjustments to deferred tax arising from the adjustments to the accounting base amounts must be ignored.

Required:

Prepare a report to the Directors of Mizyu Plc on the comparative financial performance and position of Sibajene Ltd and Mapenzi Ltd based on the above information recommending which of the two entities must be acquired.

[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.

CA 3.1: ADVANCED FINANCIAL REPORTING- SUGGESTED SOLUTION

SOLUTION ONE

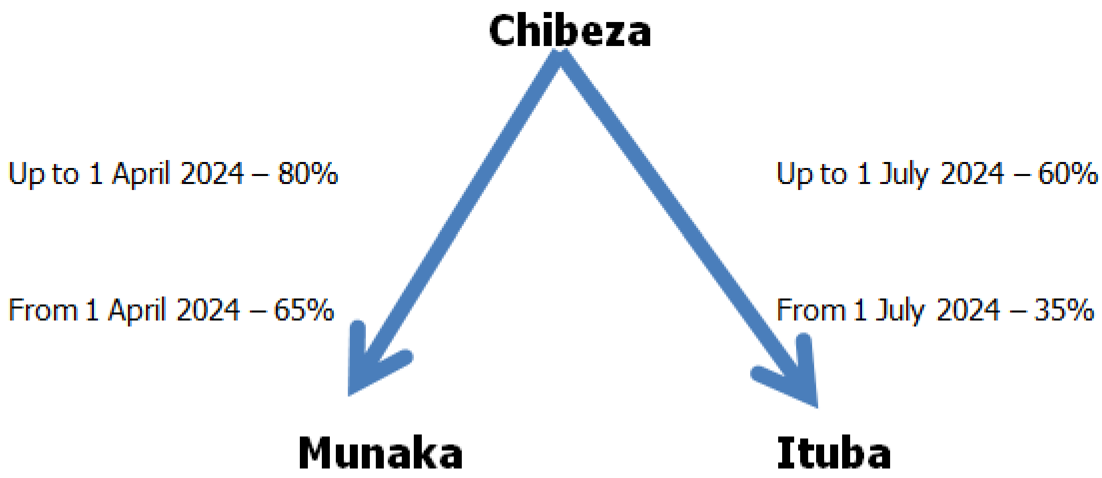
Chibeza Group Consolidated SPLOCI for the year ended 31 December 2024.

From continuing activities		K'm
Revenue	(1,050 + 850)	1,900
Cost of sales	(W2)	(922.3)
Gross profit		977.7
Distribution costs	(105 + 85)	(190.0)
Administrative expenses	(W5)	(426.10)
Operating profit		361.60
Investment income	[135 – (50% x 30 x 1.4)]	114.0
Finance costs	(80 + 50)	(130.0)
Share of Associate's profit (Ituba)	(6/12 x 17 x 35%)	3.0
Share of Joint Venture (JV) profit	(35.10 – 4.20) (W6)	30.9
Profit before tax		379.50
Income tax expense	(75 + 45)	(120.0)
Profit for the year from continuing operations		259.50
Profit for the year from discontinued operations (W9)		97.32
Profit for the year		356.82
Other comprehensive income:		
Revaluation of property	(108 + 48)	156
Share of JV's OCI (3.30 – 1.0)	(W8)	2.3
OCI for the year		158.3
Total comprehensive income		515.12

Profit for the year attributable to:		
NCI	(W12)	28.90
Owners of parent	(balancing figure)	327.92
		356.82
Total CI for the year attributable to:		
NCI	(W12)	43.90
Owners of parent	(balancing figure)	471.22
		515.12

Workings

(1) **Group structure**



(2) **Cost of sales - continuing operations**

		K'm
Given amounts:		
Chibeza		545
Munaka		375
Adjustments:		
FV depreciation - Munaka	20 (W2.)/10	2
SBP plant depreciation - Munaka	6 (W3.)/5*3/12	0.3
		922.3

(3) **Fair value gain/loss on acquisition of Munaka and Ituba**

	Munaka K'm	Ituba K'm
FV of identifiable NA at acquisition	580	626
Carrying amounts of identifiable NA		
Share capital	(100)	(100)
Retained earnings	(250)	(295)
Other reserves	(210)	(215)
FV gain/(loss)	20	16

(4) **Munaka's Plant acquired under SBP**

Per IFRS 2, cost of goods acquired in a cash – settled Share Based Payment is the amount payable based on fair value of the equity instruments on the arrangement date. This gives the cost of plant amounting to K6 million (3 million shares x K2). This should be debited to PPE and credited to Liability.

The liability should subsequently be measured at fair value (amount payable) at each reporting date. The share based payment liability will therefore increase to K7.1 million (3 million shares x K2.35) as at 31 December 2024. An increase of K1.1 million should be recognized as an expense in the statement of profit or loss.

(5) **Administrative expenses - continuing operations**

Given amounts:		K'm
Chibeza		220
Munaka		175
Adjustments:		
Increase in SBP liability	(2.35-2)*3	1.1
Goodwill impairment loss - Munaka	(560 + 140 – 580) = 120 x 25%	30
		426.10

(6) **Share of joint venture's profit for the year**

		K'm
Share of Synergy's translated profits	(K70.20m x 50%)	35.1
increase in deferred tax on investment in Joint Venture	(W7)	(4.2)
		30.9

(7) **Deferred tax expense on investment in joint venture**

		K'm
Profit or loss		
Deferred tax on unremitted earnings (35.10 – 21) x 30%		4.2
Other comprehensive income		
Deferred tax on foreign exchange gain (K3.30 x 30%)		1.0
Total deferred tax		5.2
Alternatively		
Accounting Base (Carrying amount) at 31.12.2024	(20 + 52 – 30) x 1.4 x 50%	29.4
Tax base amount (historic cost)	(20 x 1.2 x 50%)	(12.0)
Temporary difference (taxable)		17.4
Deferred tax liability at 31.12.2024	(17.4 x 30%)	5.2
Total increase in deferred tax liability	(5.2 – 0)	5.2
Expense against Other Comprehensive Income	3.3 (W8) x 30%	(1.0)
Balance against share of JV's profit in PL		4.2

(8) **Share of joint venture's OCI (exchange difference on retranslation of Net Assets**

		K'm
Joint Venture's net assets at 1.1.2024	20 x 1.2	24.0
Changes other than exchange differences		
Profit for the year	52 x 1.35	70.2
Less Dividends	30 x 1.4	(42.0)
		52.2
Exchange gain (balancing figure)		6.6
Joint Venture's net assets at 31.12.2024	(20 + 52 – 30) x 1.4	58.8
Share of Joint Venture's OCI before tax	50% x 6.6	3.3
Deferred tax on share of Joint Venture's OCI	30% x 3.3	(1.0)
Share of Joint Venture's OCI after tax		2.3

Alternatively

		K'm
Share of net assets at 1 January 2024	(ZAR20m x 50% x 1.2)	12
Share of profit for the year	(ZAR52m x 50% x 1.35)	35.10
Dividends received	(ZAR30m x 50% x 1.40)	(21)
Net assets at 31 December 2024		26.10
Exchange gain (balancing figure)		3.30
Net assets retranslated at 31 December 2024	(10 + 26 – 15) x 1.40	29.40

(9) **Profit for the year from discontinued operations (Ituba)**

		K'm
Ituba's profit for the first 6 months	(6/12 x K17m)	8.5
FV depreciation charge	(16/8 x 6/12)	(1)
Gain on disposal of Ituba	(W10)	89.82
		97.32

(10) **Gain/loss on disposal of Itube**

		K'm
Disposal proceeds		280
FV of remaining holding		392
		672
Goodwill at date of disposal	[420 + (40% x 626) – 626)] x 70%	(31.08)
Identifiable net assets at date of disposal	(W11)	(918.5)
NCI at date of disposal	(40% x 918.5) (W11)	367.4
Gain on disposal		89.82

(11)	**Ituba identifiable NA at 1.7.2024**		K'm
	Ituba's total equity at 31.12.204		920
	Less last 6 months total CI:		
	Profit for the year	6/12 x K17m)	(8.50)
	OCI		0
	Net FV gain	[16 – (16/8 x 4.5)]	7
	Ituba identifiable NA at 1.7.2024		918.50

(12) **Profit and OCI attributable to NCI**

		K'm
Share of profit for the year:		
Munaka PAT for first 3 months	(20% x 3/12 x K120m)	6.0
Munaka PAT for last 9 months	(35% x 9/12 x K120m)	31.5
Ituba's PAT for the first 6 months	(40% x 6/12 x K17m)	3.4
Munaka FV depreciation for first 3 months	(20% x 20/10 x 3/12)	(0.1)
Munaka FV depreciation for last 9 months	(35% x 20/10 x 9/12)	(0.5)
Ituba's FV depreciation for the first 6 months	(40% x 16/8 x 6/12)	(0.4)
Goodwill impairment loss - Munaka	(K30m x 35%) (W5)	(10.5)
Depreciation on SBP plant - Munaka	(35% x K0.3m) (W2)	(0.1)

Loss on SBP liability - Munaka	(35% x K1.1m) (W4)	(0.4)
Profit for the year attributable to NCI		**28.9**
Share of other comprehensive income:		
Munaka's OCI first 3 months	(20% x 3/12 x K48m)	2.4
Munaka's OCI last 9 months	(35% x 9/12 x K48m)	12.6
Total comprehensive income for the year		**43.9**

SOLUTION TWO

(a) Discussion of importance and significance of impairment testing factors under IAS 36 Impairment of assets

Entities must determine, at each reporting date, whether there are any indications that impairment has occurred. Indicators of impairment may be internal or external. The following factors need to be considered when conducting an impairment test under IAS 36 Impairment of Assets.

(i) Changes in circumstances in the reporting period.

Circumstances may change due to internal factors, for example matters as physical damage, adverse changes to the methods of use of the asset, management restructuring and over-estimation of cash flows, and external factors, such as adverse changes in the markets or business in which the asset is used, or adverse changes to the technological, economic or legal environment of the business.

If such indicators come to light between the date of the impairment test and the end of the next reporting period, more than one impairment test may be required in the accounting period. In addition, tests for impairment of goodwill and some other intangible assets may be performed at any time during the accounting period, provided it is performed at the same time each year. Not all goodwill is tested at the year-end; some entities test it at an interim period. Should impairment indicators arise after the annual impairment test has been performed; it may be necessary to test goodwill for impairment again.

A possible indicator of impairment is volatility in the market, for example, sharp changes in commodity prices may cause the assets of mining and energy companies to be impaired. In such cases, the assets affected should be tested in the interim period.

(ii) Market capitalisation

A strong indicator of impairment is when the carrying amount of an entity's assets exceeds the entity's market capitalisation, suggesting that the entity is overvalued. However, there may not be a direct correlation between the market capitalisation and the impairment loss arising from a lower return generated on the entity's assets as the market may have taken other factors into account. The discrepancy does, however, highlight the need for the entity to examine its cash-generating units, and possibly to test goodwill for impairment. The reason for the shortfall must be examined and understood, even though IAS 36 does not require a formal reconciliation between an entity's market capitalisation, its fair value less costs to sell and its value in use.

(iii) Allocating goodwill to cash-generating units

Goodwill arising on acquisition is required to be allocated to each of the acquirer's cash-generating units (CGUs), or to a group of CGUs, that 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. The difficulty with this is that IAS 36 does not give guidance as to what is meant by relative value. While fair value less costs to sell (FVLCS) could be used, this is not mandated by the standard. However, the entity may still need to carry out a valuation process on the part retained. Value in use (VIU) is a possibility, but the measure needs to be one that can be applied equally to both the part retained and the part disposed of. VIU has the obvious problem that it will be much the same as FVLCS for the operations disposed of, but there could be significant differences between VIU and FVLCS for the part retained. Alternatively, there could be reasonable ways of estimating relative value by using an appropriate industry or business surrogate, for example revenue, profits, industry KPIs.

(iv) Valuation issues

The basic principle of IAS 36 is that an asset should be carried at no more than its recoverable amount, that is the amount to be recovered through use or sale of the asset. If an asset's value is higher than its recoverable amount, an impairment loss has occurred. The impairment loss should be written off against profit or loss for the year. The recoverable amount is defined as the higher of the asset's fair value less costs of disposal and the asset's value in use. Measuring both requires the use of estimates and assumptions, some of which may be problematic.

(1) Fair value less costs of disposal is defined as the price that would be received to sell the asset in an orderly transaction between market participants at the measurement date under current market conditions, net of costs of disposal.

(2) Determining the types of future cash flows which should be included in the measurement of VIU can also be difficult. Under IAS 36 an asset or CGU must be tested in its current status, not the status that management wishes it was in or hopes to get it into in the near future. Therefore, the standard requires VIU to be measured at the net present value of the future cash flows the entity expects to derive from the asset or CGU in its current condition over its remaining useful life.

(3) While the cash flows used in testing for impairment are specific to the entity, the discount rate is supposed to appropriately reflect the current market assessment of the time value of money and the risks specific to the asset or cash generating unit. When a specific rate for an asset or cash generating unit is not directly available from the market, which is usually the case, the discount rate to be used is a surrogate.

(4) The test is further complicated by the impact of taxation. IAS 36 requires that VIU be measured using pre-tax cash flows and a pre-tax discount rate, but WACC is a post-tax rate, as are most observable equity rates used by valuers.

(5) There is a need for consistency in determining the recoverable amount and carrying amount which are being compared. For example, in the case of pensions, there can be significant differences between the measurement basis of the pension asset or (more likely) liability and the cash flows that relate to pensions.

(6) IAS 36 requires that corporate assets must be allocated to a cash-generating unit on a 'reasonable and consistent basis but does not expand on this.

(v) Disclosures

About the impairment loss recognised in respect of each cash generating unit, IAS 36 prescribes disclosure of:
(1) The amount of the impairment loss
(2) The events and circumstances that led to the loss
(3) A description of the impairment loss by class of asset.

It is no defence to maintain that this information was common knowledge in the market. The disclosures are still needed.

(b) Cash flow forecasts

IAS 36 requires that any cash flow projections are based upon reasonable and supportable assumptions over a maximum period of five years unless it can be proven that longer estimates are reliable. The assumptions should represent management's best estimate of the range of economic conditions expected to obtain over the remaining useful life of the asset. Management must also assess the reasonableness of the assumptions by examining the reasons for any differences between past forecasted cash flows and actual cash flows. The assumptions that form the basis for current cash flow projections must be consistent with past actual outcomes.

Shark has failed to comply with the requirements of IAS 36 in the preparation of its cash flow forecasts. Although the realised cash flow forecasts for 2023 were negative and well below projected cash flows, the directors significantly increased budgeted cash flows for 2024. This increase was not justified, and casts doubts on Shark's ability to budget realistically.

IAS 36 requires estimates of future cash flows to include:
(1) Projections of cash inflows from the continuing use of the asset
(2) Projections of cash outflows which are necessarily incurred to generate the cash inflows from continuing use of the asset
(3) Net cash flows to be received (or paid) for the disposal of the asset at the end of its useful life.

Forecast cash outflows must include those relating to the day-to-day servicing of the asset. This will include future cash outflows needed to maintain the level of economic benefits expected to be generated by the asset in its current condition. Shark has not considered expected changes in working capital and capital expenditure, but it is very likely that investments in working capital and capital expenditure would be necessary to maintain the assets of the CGUs in their current condition.

In conclusion, the cash flow forecasts used by Shark are not in accordance with IAS 36.

SOLUTION THREE

(a) Many users and preparers of accounts have found financial instruments to be complex. The main reason for the complexity in accounting for financial instruments is the many ways in which they can be measured. The measurement method depends on:

(1) The applicable financial reporting standard. A variety of IFRS and IAS apply to the measurement of financial instruments. For example, financial assets may be measured using consolidation for subsidiaries (IFRS 10), the equity method for associates and joint ventures (IAS 28 and IFRS 11) or IFRS 9 for most other financial assets.

(2) The categorisation of the financial instrument. While IFRS 9 classifies financial assets as measured at amortised cost, fair value through profit or loss or fair value through other comprehensive income A financial asset may only be classified as measured at amortised cost if the object of the business model in which it is held is to collect contracted cash flows and its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest.

(3) Whether hedge accounting has been applied. Hedge accounting is complex, for example when cash flow hedge accounting is used, gains and losses may be split between profit or loss for the year and other comprehensive income (items that may subsequently be reclassified to profit or loss). In addition, there may be mismatches when hedge accounting applies reflecting the underlying mismatches under the non-hedging rules.

Some measurement methods use an estimate of current value, and others use historical cost. Some include impairment losses, others do not. The different measurement methods for financial instruments creates several problems for preparers and users of accounts:

(1) The treatment of a particular instrument may not be the best but may be determined by other factors.

(2) Gains or losses resulting from different measurement methods may be combined in the same line item in the statement of profit or loss and other comprehensive income. Comparability is therefore compromised.
(3) Comparability is also affected when it is not clear what measurement method has been used.

(3) It is difficult to apply the criteria for deciding which instrument is to be measured in which way. As new types of instruments are created, the criteria may be applied in ways that are not consistent.

(b) A single fair value model would be much simpler to apply than the current mixed model. A single measurement method would, it is argued:

(1) Significantly reduce complexity in classification. There would be no need to classify financial instruments into the four categories of fair value through profit or loss, fair value through other comprehensive income, amortised cost, and other liabilities. This simplification has already been partially achieved by IFRS 9.

(2) Reduce complexity in accounting. There would be no need to account for transfers between the above categories, or to report how impairment losses have been quantified.

(3) Eliminated measurement mismatches between financial instruments and reduce the need for fair value hedge accounting.

(4) Eliminate the need to identify and separate embedded derivatives.

(5) Better reflect the cash flows that would be paid if liabilities were transferred at the re-measurement date.

(6) Make reported information easier to understand.

(7) Improve the comparability of reported information between entities and between periods.

However, while fair value has some obvious advantages, it has problems too. Uncertainty may be an issue for the following reasons:

(1) Markets are not all liquid and transparent.

(2) Many assets and liabilities do not have an active market, and methods for estimating their value are more subjective.

(3) Management must exercise judgement in the valuation process and may not be entirely objective in doing so.

SOLUTION FOUR

(a) Ethical responsibility of the chief financial officer

Directors may, in a bid to meet targets, wish to present a company's results in a favourable light. This may involve manipulation by creative accounting techniques such as window dressing, or, as is proposed by the directors of Lion plc, an inaccurate classification.

If the proceeds of the sale of investments in equity instruments and property, plant and equipment are presented in Lion plc's cash flow statement as part of 'cash generated from operations', the picture is misleading.

Operating cash flow is crucial, in the long-term, for the survival of the company, because it derives from trading activities, which is what the company is there to do. Operating cash flows are seen as recurring whereas investing and financing cash flows tend to be more one-off. Lion plc's operations would not normally see it selling surplus machinery and equity investments as part of its trading operations. Sales of assets generate short-term cash flow, and cannot be repeated year-on-year, unless there are to be no assets left to generate trading profits with.

This misclassification could be regarded as a deliberate attempt to mislead stakeholders about the performance of Lion plc, and its potential future performance, which is unethical.

As a professional, the accountant has a duty, not only to the company he works for, but also to his professional body, and to the stakeholders in the company. Classification of proceeds from selling machinery and investments should be classified as 'cash flows from investing activities' (rather than 'operating activities') according to IAS 7 *Statement of Cash Flows*. Also, IAS 1 *Presentation of Financial Statements* requires fair presentation.

Under IFAC's *Code of Ethics and Conduct*, the chief financial officer should adhere to the fundamental principle of professional competence and due care which includes preparing financial statements that comply with IFRS. Should the chief financial officer permit the directors to proceed with their proposed accounting treatment, he or she would be in breach of this principle of professional competence and due care. There is a danger that the accountant feels pressured to follow the directors' proposed incorrect accounting treatment in order to protect their job security. Therefore, there is a self-interest threat in relation to the directors and an advocacy threat in relation to the chief financial officer feeling pressured to act in the directors' best interests.

It is essential that the chief financial officer tries to persuade the directors not to proceed with the adjustments, which he or she must know violate IAS 7, and may well go against the requirements of local legislation. If, despite his protests, the directors insist on the misleading presentation, then the chief financial officer has a duty to bring this to the attention of the auditors. If unsure of what to do, the chief financial officer should seek professional advice from ZiCA.

(b) IAS 21 issues

Monetary items are units of currency held and assets and liabilities to be received or paid in a fixed or determinable number of units of currency. This would include foreign bank accounts, receivables, payables and loans. Non-monetary items are other items which are in the statement of financial position. For example, non-current assets, inventories and investments.

Monetary items are retranslated using the closing exchange rate (the year end rate). The exchange differences on retranslation of monetary assets must be recorded in profit or loss. IAS 21 *The Effects of Changes in Foreign Exchange Rates* is not specific under which heading the exchange gains and losses should be classified.

Non-monetary items which are measured in terms of historical cost in a foreign currency are translated using the exchange rate at the date of the transaction; and nonmonetary items which are measured at fair value in a foreign currency are translated using the exchange rates at the date when the fair value was measured.

Exchange differences on such items are recorded consistently with the recognition of the movement in fair values. For example, exchange differences on an investment property, a fair value through profit and loss financial asset, or arising on an impairment, will be recorded in profit or loss. Exchange differences on property, plant and equipment arising from a revaluation gain would be recorded in other comprehensive income.

When translating a foreign subsidiary, the exchange differences on all the net assets, including goodwill, are recorded within other comprehensive income. The proportion belonging to the shareholders of the parent will usually be held in a separate translation reserve.

The proportion belonging to the non-controlling interest is not shown separately but subsumed within the non-controlling interest figure in the consolidated financial statements.

If Fox plc were to sell all its equity shares in Dog Ltd, the translation reserve will be reclassified from equity to profit or loss. In addition, the cumulative exchange differences attributable to the non-controlling interest would be derecognised but would not be reclassified to profit or loss.

When a monetary item relating to a foreign operation is not intended to be settled, the item is treated as part of the entity's net investment in its subsidiary. There will be no difference in the accounting treatment in the individual accounts of Dog Ltd and hence exchange differences on the loan would remain in profit or loss.

However, in the consolidated financial statements such differences should initially be recorded in other comprehensive income. These will be reclassified from equity to profit or loss on subsequent disposal of the subsidiary. This can cause practical issues in terms of monitoring all the individual exchange differences to ensure that they are all correctly classified in the consolidated financial statements.

(c) Lease agreement substance presentation
It is important that stakeholders of a company can rely on the financial statements to make informed and accurate decisions. The directors of Hyena Ltd have an ethical responsibility to produce financial statements which comply with accounting standards, are transparent and free from material error.

Lenders will often attach covenants to the terms of an agreement to protect their interests in an entity. They would also be of crucial importance to potential debt and equity investors when assessing the risks and returns from any future investment in the entity.

The proposals by Hyena Ltd appear to be a deliberate attempt to circumvent the terms of the covenants. The legal form would be to treat the lease as a series of short-term leases. This would be accounted for as expenses in profit or loss and not recognise the right-of-use asset and the associated lease obligation that the substance of the transaction and IFRS 16 *Leases* requires. This would be a form of 'off-balance sheet finance' and would not report the true assets and obligations of Hyena Ltd. It is likely that liquidity ratios would be adversely misrepresented from the proposed accounting treatment.

The operating profit margins are likely to be adversely affected by the attempt to use the short-term exemption, as the expenses associated with the lease are likely to be higher than the depreciation charge if a leased asset was recognised, hence the proposal may actually be detrimental to the operating profit covenant.

Hyena Ltd is aware that the proposed accounting treatment may be contrary to accounting standards. Such manipulation would be a clear breach of the fundamental principles of objectivity and integrity as outlined in the IFAC *Code of Ethics*. It is important that accountants are seen to always exercise professional behaviour and due care. The proposals by Hyena Ltd are likely to mislead stakeholders in the entity. This could discredit the profession creating a lack of confidence within the profession.

The directors of Hyena Ltd must be reminded of their ethical responsibilities and persuaded that the accounting treatment must fully comply with accounting standards and principles outlined within the framework should they proceed with the debt factoring agreements.

SOLUTION FIVE

REPORT

To: Directors, Mizyu Plc
From: Financial Analyst
Date: Date of exam
Subject: Comparative Financial Analysis of Sibajene Ltd and Mapenzi Ltd

1. Introduction

This report provides a comparative financial analysis of Sibajene and Mapenzi with a view to recommend which of the two entities is a suitable acquisition target if any. The analysis covers the following areas: profitability, liquidity and capital management efficiency, and gearing.

Relevant ratios, which are the basis for the analysis, are highlighted in the appendix to the report.

2. Profitability

2.1 Overall profitability
Based on the return on capital employed (ROCE) ratio, Sibajene is far more profitable than Mapenzi. Sibajene's ROCE of 32.5%% represents more than three times that of Mapenzi at only 8.5%.

2.2 Profit Margins
Both Sibajene's NP margin at 12.4% is several times better than that of Mapenzi at only 6.2%. However, Mapenzi has a slightly better GP margin at 26.8% compared to Sibajene's 20.7%. It appears despite better sales prices or cost of purchases, Mapenzi has excessive distribution and administrative overheads.

2.3 Asset Turnover
Sibajene has better ability to generate sales using the capital employed. This is as measured by Sibajene's asset turnover ratio at 2.6 times compared with Mapenzi at only 1.4 times.

In conclusion, overall, Sibajene is more profitable than Mapenzi based on both profit margins and asset turnover.

3. Liquidity and Working Capital Management Effciency

3.1 Liquidity and Working Capital Management Efficiency

Both entities appear to have serious liquidity problems as measured by the current ratio and the quick ratio. In respect of Sibajene, problems have resulted in a huge bank overdraft.

Sibajene's current and quick ratios of 0.6 and 0.3 are way below the optimum amounts of 2 and 1 respectively. The same applies to Mapenzi's current and quick ratios of 0.5 and 0.0 respectively.

Overall, Sibajene appears to have better liquidity, considering its working capital management efficiency, despite having a huge bank overdraft.

4. Gearing

Mapenzi has lower gearing than that of Sibajene despite a lower interest cover ratio. The lower overall profitability has negatively impacted Mapenzi's interest cover ratio. Sibajene's gearing ratio at 52.7% is just above the cutoff point of 50% and hence not excessive.

5. Conclusion

Based on the above analysis, the financial performance (profitability) and position (liquidity and gearing) of Sibajene appears better than that of Mapenzi trading-off Sibajene's slightly lower GP margin and the big overdraft.

6. Recommendation

Based on the above conclusion, the appropriate acquisition target, if any, must be Sibajene. However, the directors of Mizyu Plc should note that upon acquisition, Sibajene is likely to require some long term capital injection, preferably in form of equity as its gearing is already past the benchmark of 50%.

APPENDICES TO THE REPORT

(1) FINANCIAL RATIOS

Area	Ratio	Formula	Sibajene	Mapenzi
Profitability	ROCE	PBITX100/CE	32.5%	8.5%
	GP Margin	GPX100/Revenue	20.7%	26.8%
	NP Margin	PBITX100/Revenue	12.4%	6.2%
	Asset T/O	Revenue/CE	2.6	1.4
Liquidity	Current Ratio	Current Assets/Current Liabilities	0.6: 1	0.5: 1
	Quick Ratio	Current Assets less Inventory/Current Liabilities	0.3: 1	0.0:1
Working Capital Management	Inventory Days	InventoryX365/cost of sales	35.0	87.6
	Receivables Days	ReceivablesX365/Revenue	21.8	32.9
	Payables Days	PayablesX365/cost of sales	25.2	56.0
Gearing	Gearing Ratio	NCLX100/CE	52.7	40.9
	Interest Cover	PBIT/Finance costs	3.6 times	1.8 times

(2) ADJUSTED FINANCIAL STATEMENT AMOUNTS

(1) Sibajene adjusted PBIT

		K'000
Given amount	(7,800+1,000)	8,800
Adjustments:		
Reversal of lease payments charged as expense		12,000
Amortisation of ROUA	(38,038/4)	(9,510)
Adjustments to inventories	(500 – 300)	200
Adjusted PBIT		14,490

(2) Sibajene adjusted Gross profit

		K'000
Given amount		24,000
Adjustments:		
Adjustments to inventories:		
Opening	(8600-8100)	500
Closing	(-9200+8900)	(300)
Adjusted PBIT		24,200

(3) Mapenzi adjusted PBIT

		K'000
Given amount	(14,000 + 400)	14,400
Adjustments:		
Reversal of historic cost depreciation	(25,000/50)	500
Depreciation based on revalued amount	(24,800//49)	(506)
Revaluation loss	[300 – (23,000 – 24,294)]	(994)
Amortisation of ROUA	(24,869/3)	(8,290)
Adjusted PBIT		5,110

(4) Sibajene Adjusted Capital Employed (CE)

			K’000
Given amount	Equity		23,200
	Non-current Liabilities		12,600
Adjustments:			
Reversal of lease payments charged as expense		(12,000 x 2)	24,000
Amortisation of ROUA		(9,510 x 2)	(19,020)
Finance costs on lease liabilities		(3,804 + 2,984)	(6,788)
Lease liabilities (non-current)		[(20,826 x 1.1) – 12,000]	10,909
Adjustments to inventories		(9,200 – 8900)	(300)
Adjusted capital employed			44,601

(5) Mapenzi Adjusted Capital Employed (CE)

			K’000
Given amount	Equity		47,400
	Non-current Liabilities	(13,800 + 1,800)	15,600
Adjustments:			
Revaluation reserve/adjustment to RE		[300 - (23,000 – 24,294)]	(994)
Amortisation of ROUA			(8,290)
Finance costs on lease liabilities			(2,487)

Non-current portion of lease liabilities	[(17,356 x 1.1) – 10,000]	9,092
		60,321

(6) Sibajene Adjusted Current Assets		K'000
Given amount		17,800
Adjustment to inventory	(8,900 – 9,200)	(300)
		17,500

(7) Sibajene Adjusted Current liabilities		K'000
Given amount	(6,000 + 5,800 + 3,200 + 6,400)	21,400
Current portion of lease liabilities	(20,826 – 10,909)	9,917
		31,317

(8) Mapenzi Adjusted Current Assets		K'000
Given amount		24,600
Supposed lease payments		(10,000)
		14,600

(9) Mapenzi Adjusted Current liabilities		K'000
Given amount	(6,400 + 8,200 + 9,200)	23,800
Current portion of lease liabilities	(17,356 – 9,092)	8,264
		32,064

(10) Sibajene adjusted non-current liabilities		K'000
Given amount		12,600
Lease liabilities (non-current)	[(20,826 x 1.1) – 12,000]	10,909
		23,509

(11) Mapenzi adjusted non-current liabilities		K'000
Given amount	(13800+1800)	15,600
Lease liabilities (non-current)	[(17,356 x 1.1) – 10,000]	9,092
		24,692

(12) Adjusted finance costs	**Sibajene**	**Mapenzi**
	K'000	K'000
Given amounts	1,000	400
Lease finance costs	2,984	2,487
	3,984	2,887

(13) Sibajene's Lease liability/ROUA		K'000
Initial lease liability/ROUA	[(1.1^-1+1.1^-2+1.1^-3+1.1^-4) x 12,000]	38,038

Movement in lease liability

Balance at 1.1.2022		38,038
Finance cost y/e 31.12.2022	(10% x 38,038)	3,804
Rent paid 31.12.2022		(12,000)

Balance at 31.12.2022/1.1.2023		29,842
Finance cost y/e 31.12.2023	(10% x 29,842)	2,984
Rent paid 31.12.2023		(12,000)
Balance at 31.12.2023/1.1.2024		20,826

Movements in ROUA

Balance at 1.1.2022		38,038
Amortisation y/e 31.12.2022	38038/4	(9,510)
Balance at 31.12.2022/1.1.2023		28,528
Amortisation y/e 31.12.2022	38038/4	(9,510)
Balance at 31.12.2022/1.1.2023		19,018

(14) Adjustments to Sibajene's inventories

		K'000
Adjustments to cost of sales for the y/e 31.12.2023		
Reduction to opening inventory	(9,200 – 8,900)	300
Reduction to closing inventory	(8,100 – 8,600)	(500)
Net decrease in profit for the year		(200)

(15) Mapenzi's supposed lease liability and ROUA

		K'000
Initial lease liability/ROUA	[(1.1^-1+1.1^-2+1.1^-3) x 10,000]	24,869

Movement in lease liability

Balance at 1.1.2023		24,869
Finance cost y/e 31.12.2023	(10% x 24,869)	2,487
Rent paid 31.12.2023		(10,000)
Balance at 31.12.2023		17,356

Movements in ROUA

Balance at 1.1.2023		24,869
Amortisation y/e 31.12.2023	(24,869/3)	(8,290)
		16,579

END OF SUGGESTED SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATION

CA ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA 3.2: ADVANCED AUDIT AND ASSURANCE

THURSDAY 12 JUNE 2025

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 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.

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

Innovations Plc. is a Zambian publicly listed company involved with the manufacturing of a wide range of goods. The company manufactures products ranging from edible food stuffs to household cleaning materials. The company sells the bulk of its products through established chain stores with whom it has contracts and also to wholesalers across the country. Innovations Plc. has 10% shares in Quick Logistics Ltd a transport company which delivers the company products to all provinces in the country. On 1 July 2024, Innovations Plc. acquired a controlling interest in Quick Logistics Ltd to enable it control and manage the transportation of its goods across the country.

Innovations Plc. owns 80% of the shares in Lobatse Wholesalers Ltd a Botswana registered company located in Lobatse.

The following additional information relates to Innovations Plc. and its subsidiaries:

Innovations Plc.
The year-end of Innovations Plc. is 31 December and the financial statements under consideration are for the year ended 31 December 2024. The company holds significant quantities of raw materials used in production and at the year-end it holds significant quantities of work in progress and finished goods.

The auditors of Innovations Plc. were Hopson & Associates until they were removed from office at the end of the last financial year.

The following figures were extracted from the draft financial statements of Innovations Plc arising from the revaluation of its properties whose results are included in the figures contained in the financial statements for 2024:

Revaluation losses	(Note 1)	K1.5million
Revaluation surplus	(Note 2)	K2.5million

Note 1:
This amount includes a property which was revalued for the first time and the revaluation loss of K200,000 was debited to the revaluation account in the current year.

Note 2:
A surplus for a property that was previously revalued three (3) years ago is included in this figure a revaluation surplus of K500,000. The revaluation surplus of K500,000 for this property has been credited to the revaluation account in the current year. When the property was revalued for the first time, there was a revaluation loss of K200,000 that was debited to the profit or loss account in that year.

Quick Logistics Ltd:
The period end of Quick Logistics Ltd is 30 September and it's the first time the company is preparing its financial statements after the acquisition by Innovations Plc, which will be for the year ended 30 September 2024. The current auditors of Quick Logistics Ltd are Buumba & Co Chartered Accountants and it was resolved that they continue being the auditors even after the acquisition of

the company by Innovations Plc. Quick Logistics Ltd runs a large fleet of trucks used in the transportation of goods across the country.

After being acquired by Innovations Plc, Quick Logistics Ltd is expected to contribute approximately 20% to group revenue and 15% to profit before tax.

After the acquisition of Quick Logistics Ltd by Innovations Plc., the company contributed 20% of group revenue and 15% of group profit after tax.

Lobatse Wholesalers Ltd:
The company prepares its financial statements in the local currency and these are translated in the parent company currency for consolidation purposes. There is no requirement that financial statements should be prepared in accordance with International Financial Reporting Standards in the host country. Motitse & Co a small firm of auditors are the auditors of Lobatse Wholesalers Ltd and in compliance with the host country's laws that small and medium size companies should have their financial statements audited by local firms of chartered accountants, therefore company will continue to be audited by Motitse & Co. The accountancy profession is not regulated in the host country of Lobatse Wholesalers Ltd and the auditors do not follow International Standards on Auditing in conducting audits.

The contribution in terms of revenue by Lobatse Wholesalers Ltd is low at 3% and 1% towards profit after tax. The only reason why the company has retained the subsidiary is that the revenue from sales to Lobatse Wholesalers Ltd is in foreign currency which it requires for the importation of some of its raw material requirements.

It was resolved at the previous annual general meeting that a group management team should be put in place to run the affairs of the Innovations group of companies. At its first management meeting, the group management made the following resolutions:

1. In view of the growth of the company after acquiring a controlling interest in Quick Logistics, the company had grown beyond the capacity of the current auditors to continue auditing the company. It was resolved that the offer of audit services to the group be put to tender.

2. That the group auditors that will be appointed should assist in the preparation of the first consolidated financial statements for the year ended 31 December 2024 before conducting the audit.
3. The group financial statements audit should be completed and the audit report signed by 15 March 2025 in readiness for the Board of Director's meeting on 19 March 2025 and the annual general meeting to be held on 4 April 2025.

4. All subsidiary companies should prepare interim financial statements which should be subject to reviews by the component auditors. The annual audits will be conducted in line with the time table that will be prepared by the group management.

5. The firm that will be appointed will be required to audit the financial statements of Innovation Plc, the parent company, as well as the group consolidated financial statements.

In response to the advertisement for the offer of audit services for the Innovations group of companies, Petkin & Associates a firm of chartered accountants is considering bidding for the offer of audit services. This is a five (5) partner firm of chartered accountants which has been in existence for over ten (10) years. The firm is specialized in the audit of financial statements of trading and financial services companies. The firm resolved to expand its client base to include manufacturing companies. The Managing Partner of Petkin & Associates is pleased that John, one (1) of the partners has vast experience in manufacturing industry having worked as Chief Accountant for Innovations Plc. until one (1) year ago when he left and joined the firm. The partnership resolved to submit a tender for the offer of audit services although the group management team is not known by Petkin & Associates a majority of who are of foreign origin.

After evaluation of all bids submitted, the Innovation Group management team nominated Petkin & Associates to be the group auditors. The company has formally written to Petkin & Associates informing them about the nomination.

Required:

(a) (i) Describe three (3) matters that Petkin & Associates should consider before accepting nomination as auditors of Innovation Plc and the Innovations group. (6 marks)

(ii) Assuming that Petkin & Associates accepts nomination to be auditor of Innovations Plc and the Innovations group, describe three (3) professional or ethical matters that should be considered after accepting appointment. (6 marks)

(b) (i) Describe five (5) matters that should be considered in planning the audit of the financial statements of Innovations Plc. and the group financial statement by the auditors. (10 marks)

(ii) Evaluate the accounting treatment of the results of the revaluation of properties in the financial statements of Innovations Plc. (4 marks)

(iii) Describe four (4) audit procedures that should be performed for the audit of related parties and related party transactions in the audit of the financial statements of Innovations Plc. (4 marks)

(c) Describe, with justification, the extent of the audit work that the group engagement team should conduct on the financial statements of the subsidiary companies. (6 marks)

(d) Explain the levels of assurance that the component auditors will provide for the planned reviews of the interim financial statements and the annual statutory audit of the financial statements. (4 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt any THREE (3) questions.

<u>QUESTION TWO</u>

Your firm of chartered accountants accepted appointment as auditor of Lima Farms Ltd a company involved in mixed farming. The company is involved in the growing of wheat and rearing of dairy animals. You are the Partner responsible for client acceptance and you are in the process of preparing the engagement letter which will form the contractual agreement with Lima Farms Ltd.

You called a meeting with the management of Lima Farms Ltd which will be attended by Tembo an Audit Manager in your firm. The first financial statements that will be subject to audit by your firm are those for the year ended 30 June 2024. It was agreed that once the engagement letter is issued, the audit team will conduct an interim audit. The year-end reporting timetable of Lima farms Ltd is tight and doing some work at the interim audit stage will help in completing the final audit on time. In view of the nature of the industry the company is involved in, it was agreed that the firm will engage experts to help verify the value of inventory and work in progress at the period end. The cost of engaging the experts will be met by Lima Farms Ltd. During the meeting, the Chief Executive Officer expressed concern that the previous auditors did not help the company in any way with regards risk assessment as well as setting up necessary internal controls. You tried to explain that it is not the duty of the auditors to identify risks and set up internal controls but it was clear that he had different views and appeared not satisfied with the explanations given.

The audit team that was assigned on the audit of the financial statements of Lima Farms Ltd conducted tests of controls at the interim audit visit. You informed management that completion of the final audit will depend on management providing the draft financial statements and the related schedules by the agreed date and the willingness of management to provide written representations especially with regards accounting estimates.

The agriculture industry is highly regulated and during the first quarter of 2023, a statutory instrument was passed regulating the quantity of proteins that should be added to stock feed for dairy animals. Random test conducted by the Food and Nutrition Commission revealed high levels of proteins in dairy milk. Arising from these findings, a statutory instrument was passed specifying stiff penalties against those farmers that feed dairy animals with proteins above specified levels. Non-compliance with the regulations will attract a penalty of 500,000 penalty units the equivalent of K1.5 million for each violation. Repeated violations to the provisions of the statutory instrument could result in the farmer being banned from selling milk to the public.

In a meeting addressed by the Permanent Secretary in the Ministry of Agriculture, he informed the attendees that all farms will be inspected within the next three (3) months to identify those that are non-compliant. During the interim audit visit, it was noted that Lima Farms Ltd continued to feed the dairy animals with feed containing excess proteins in violation of the provisions of the statutory instrument of 2023. This conclusion was arrived at after conducting analytical reviews which showed the volume of proteins used in the period compared to the stock feed.

Among the internal control weaknesses that were observed during the interim audit visit are the following:

1. Bank reconciliations are not being prepared on a monthly basis as required and they are not independently checked. This was brought to the attention of management and management agreed to this observation and the risk that fraud may go undetected for a long time due to irregular preparation of reconciliations. The need for independent checking of the bank reconciliations was also agreed.

2. There were significant differences between physical inventory counts and the stock records for random items counted. Changes to inventory records are made with no investigations being done to establish the cause of the differences. There is a risk that fraud could be perpetrated resulting in loss of inventory to the company. The matter was discussed with management who agreed to investigate any differences before amending the records.

Required:

(a) (i) Explain how non-compliance with laws and regulations will impact the financial statements of Lima Farms Ltd. (2 marks)

(ii) Explain how the audit team should deal with the discovery of non-compliance with the provisions of the statutory instrument by Lima Farms Ltd. (6 marks)

(b) State and explain four (4) matters that should be included in the engagement letter for provisions of professional services to Lima Farms Ltd. (4 marks)

(c) Draft a suitable extract management letter to Lima Farms Ltd., showing appropriate headings, using the information in the scenario. (8 marks)

[Total: 20 Marks]

QUESTION THREE

The audit of the financial statements of Kalabo Ltd is about to commence. An audit team comprising the Audit Manager, who has been on this assignment for three (3) years and the Audit Senior and three (3) Audit Assistants who have been assigned to this audit for the first time has been set up. The Engagement Partner on this audit is a non-executive board member of a company that is in direct competition with Kalabo Ltd. He owns 5% shares in that company.

Your firm of chartered accountants provides non-audit services to clients through its consultancy division. During the current year, Kalabo Ltd entered into a separate engagement to have the firm provide consultancy in the determination of the pension cost in the financial statements. In addition to this, the company requested that the firm helps the company in efforts to reduce its tax liability through effective tax planning methods.

The profit before tax and the total assets in the draft financial statements of Kalabo Ltd amount to K850,000 and K2,500,000 respectively. Users of financial statements generally use the profit before tax in making investment decisions. An evaluation of audit risks suggested that the audit risk regarding accounting estimates is higher than that for the financial statements as a whole. This is because the company introduced a performance-based remuneration scheme for senior management and the bank considers specified key performance figures in deciding to continue giving overdraft facilities to Kalabo Ltd. The Audit Senior is not sure how this should be incorporated in the audit of the financial statements of Kalabo Ltd. In determining the materiality levels at the planning stage the audit team took into consideration the control environment, internal controls and overall audit risk which were considered strong and within acceptable levels.

During the stage of conducting the audit, tests of controls were performed to enable the audit team decide on the nature and extent of further audit procedures to be performed. The results showed that the controls were not operating as expected and as such no reliance would be placed on internal controls. The Audit Senior was not sure of the action that should be taken in view of the ineffectiveness of the internal guidance and would like to get guidance from the senior staff in the audit team.

Kalabo Ltd is a Value Added Tax registered company and it maintains a VAT account for Zambia Revenue Authority to which input tax is credited and output tax debited. Analytical procedures performed by the audit team showed that the company sales were in excess of the inputs and as such the net effect should be that VAT is payable to the Zambia Revenue Authority. During the year, the company got VAT refunds in seven (7) instances suggesting that input VAT was higher than output VAT. Investigations revealed that the purchases in the months in which there were VAT refunds were from Kazungula Ltd, a related company to Kalabo Ltd, and there was no evidence that goods were supplied by Kazungula Ltd and received by Kalabo Ltd. The matter was brought to the attention of the Audit Manager who on confirming the fraud brought the matter to the attention of the Board of Directors and also reported the matter to the Zambia Revenue Authority. The Chief Accountant of Kalabo Ltd is well aware of the guidelines and laws regarding the accounting for Value Added Tax and this has been going on with his full knowledge.

Required:

(a) Explain five (5) professional or ethical issues in the audit of the financial statements of Kalabo Ltd and for each issue suggest a suitable safeguard that must be applied. (10 marks)

(b) Suggest, with justification, materiality levels at the planning and during the substantive audit stages of the audit of the financial statements of Kalabo Ltd. (4 marks)

(c) Describe four (4) audit procedures that should be performed in the audit of the Value Added Tax account in the audit of the financial statements of Kalabo Ltd. (6 marks)

[Total: 20 Marks]

QUESTION FOUR

(a) You are the Engagement Partner in the audit of the financial statements of Batoka Ltd.

The audit of the financial statements for the year ended 31 March 2024 is nearing completion and you have been given the working paper files for your review and determination of the audit opinion.

The following information has been extracted from the current audit working paper file:

1. The materiality level for the financial statements as a whole set at the planning stage of the audit is K14,800.

2. The accumulated total of uncorrected misstatements at the period end amount to K5,600.

3. The draft financial statements of Batoka Ltd were prepared on a historical cost basis.

4. Batoka Ltd secured a loan of K10 million and the company is failing to service the loan. The company obtained a comfort letter from its parent company and the bank indicated that unless the loan is repaid within the next three (3) months, it will have no option but to enforce the security. This gives rise to a material uncertainty with regards the ability of Batoka Ltd as a going concern.

Using the information extracted from the working papers you are evaluating the information to enable you reach an appropriate opinion for the audit. The material uncertainty has been adequately disclosed by management in the financial statements.

Required:

(i) Recommend, with justification, a suitable audit opinion based on the evaluation of the audit evidence on the audit of the financial statements of Batoka Ltd. (4 marks)

(ii) Draft the opinion, basis of opinion and any other paragraph deemed necessary, based on the recommendation in (i) above. (6 marks)

(b) Limestone Plc. is a manufacturing company involved in the manufacturing of industrial lime used by manufacturing companies in the manufacture of household detergents and also used in the manufacturing of sugar. The company runs a mine located in the outskirts of Lusaka and it uses mining equipment that was bought through a bank loan obtained three (3) years ago. The mine is required to renew its operating license and it is subject to inspections by the Zambia Environmental Management Agency (ZEMA) before the license is renewed.

A group of community members living around the mine have been lobbying ZEMA that the operating license should not be renewed in view of the effects of the mining activities on the community. There is an ongoing legal case where community members have sued the company claiming compensation for damages caused to their properties arising from blasting that is undertaken by the mine. The case is yet to be decided by the High Court.

In addition to compensation the community want the court to determine that the company should cease mining activities in this area where people have lived for more than forty (40) years, before the company was established. Recently, there have been political statements being made supporting the demands of the community.

Limestone Plc. has recently been undergoing operational problems on account of the erratic supply of power and has suffered the effects of load shedding currently experienced in the country. Production has reduced to 30% of the normal capacity and the liquidity position deteriorated on account of high fixed costs that are not supported by increased production. Further, the company has been forced to reduce its selling prices in an effort to attract customers aimed at alleviating the poor liquidity position. In some cases, products are sold at below cost due to stiff competition from manufacturers that have alternative sources of power and have not been affected by the power cuts. The company has defaulted in repaying the bank loan and the bank has threatened to take legal action to recover the loan.

The bulk of the sales of Limestone Plc are on credit and the summary of the receivables age analysis is as follows:

	Total	Current	30 days	>30 days
	K'm	K'm	K'm	K'm
Balance at 30 June 2024	5,300	1,500	982	2,830

Limestone Plc. outsources security services from a security company in which the company has a 30% shareholding. Due to the liquidity challenges being faced, the company has not paid for security services received for six (6) months.

Your firm of chartered accountants has been appointed auditor of the financial statements of Limestone Plc following the resignation of the previous auditors. You are Audit Senior on the audit of the financial statements for the year ended 30 June 2024.

You are planning the audit in accordance with the provisions of IAS 315 *identifying and assessing the risks of material misstatements through understanding the entity and its environment.*

Required:

Describe five (5) audit risks in the audit of the financial statements of Limestone Plc. and for each risk suggest a suitable audit response. (10 marks)

[Total: 20 Marks]

QUESTION FIVE

Your firm of chartered accountants is auditor of Mukuni Plc. and the audit of the financial statements for the year ended 30 June 2024 is about to commence.

You have been assigned Audit Manager for the audit of the financial statements of Mukuni Plc. and you have attended the pre-audit meeting with the management and Audit Committee of Mukuni Plc.

The following matters arose in the pre-audit meeting:

1. The company prepared the financial statements on the historical cost basis. This was arrived at after considering management's assessment of the company's ability as a going concern. The company concluded that the company is a going concern and will be able to settle its debts as they fall due.

2. The Audit Committee expressed concern about the level of the audit fee which it considered too high. The company is fully computerized and its operations are interlinked with its customers, suppliers and the bank. The committee is of the view that the auditors should be able to take advantage of its computerization and the use of modern auditing techniques which should result in reduced audit costs that must be passed on to clients.

The following additional information relates to Mukuni Plc.:

Mukuni Plc. has been adversely affected by the harsh economic situation that the country is going through. As a result, the payables days have increased from 30 days to 60 days resulting in a significant number of suppliers withdrawing credit and requiring advance payment for any future purchases. This is evidenced by a deteriorating current ratio which is currently 0.10 from an average of 1.5 in previous years.

The financial statements of Mukuni Plc. contain the following information:

1. The documents containing the financial statements of Mukuni Plc. include a report of the Directors which contains key performance indicators for the current and past five (5) years. The report of the directors also contains liquidity and capital resource information which was used in evaluating the ability of the company as a going concern.

2. A receivable who owed K1.5 million at the period end filed for bankruptcy on 25 July 2024, after the audit report was signed, and a liquidator was appointed as directed by the court. Management declined the request to amend the financial statements.

3. An electrical fire in the main warehouse destroyed inventory worth K1 million on 25 July 2024. The draft financial statements were not amended on account of the inventory lost.

Required:

(a) (i) Explain how big data and data analytics could impact the audit fee and sampling risk. (4 marks)

(ii) Describe two (2) substantive audit procedures for the summary of key financial results contained in the documents containing the financial statements of Mukuni Plc. (2 marks)

(iii) Describe the reporting requirements for *Other information* in the auditor's report. (4 marks)

(b) (i) Evaluate management's assessment of Mukuni Plc. as a going concern using the information in the scenario and explain the action that should be taken by the audit team. (4 marks)

(ii) Evaluate the treatment of items (2) and (3), in the information extracted from the financial statements and make recommendations as necessary. (6 marks)

[Total: 20 Marks]

END OF PAPER

SOLUTION ONE

(a) (i) Matters to be considered by Petkin & Associates before accepting nomination:

(1) Petkin & Associates should consider whether the firm has the skills and competences to audit financial statements in the manufacturing industry that Innovations Plc. and the subsidiaries are involved in. This is of concern because the firm wishes to expand its client base having been auditing trading and financial services entities. It will not be appropriate to include John in the audit team because he recently worked as Chief Accountant for Innovations Plc. and a self-review and familiarity threat would arise.

(2) Consideration should be taken on the timetable by the prospective client and whether the firm will be able to conduct a quality audit meeting the timetable. It is most likely that the cost of conducting the group audit is high so the firm should consider availability of financial resources.

(3) The firm should consider whether there ethical matters that can prohibit it from accepting appointment. One of the resolutions of the group management is that the group auditors to be appointed should be willing to help in the preparation of the first consolidated financial statements before conducting the audit. This gives rise to ethical problems because it could give rise to a self-review which is likely to impact on the objectivity of the auditors. Unless there suitable safeguards that can be put the firm might as well not bid for the offer of audit services.

(4) The integrity of the group management should be examined especially that this comprises new people not known by the firm. The firm should consider obtaining references on the group management.

(iii) Ethical matters that should be considered after accepting nomination as auditors:

(1) Petkin & Associates should ensure that the firm has been appointed correctly in accordance with procedures. This will be done by obtaining a copy of the resolution of the meeting at which the appointment was made.

(2) In view of the fact that Petkin & Associates will be required to audit the financial statements of the parent company and the consolidated financial statements, there is need to seek permission to communicate with Hopkins & Associates to ensure that they were correctly removed from office and also to seek professional clearance that there are no reasons why appointment should be declined.

(3) The firm should prepare and submit an engagement letter which will contain the terms of the engagement and submit it to the directors of the company.

(b) (i) Matters that should be included in the audit plan:

(1) Allocation of staff:
The allocation of staff to be on the audit team for the audit of the financial statements of Innovation Plc. and the group consolidated financial staff will be included in the audit plan. Consideration of skills and competences possessed will be made when allocating staff.

(2) The scope and approach of the work that will be performed:
This will be in line with the engagement details that are contained in the engagement letter. This will include the reporting requirements that will have been agreed with management of Innovation Plc. and the group management team.

Consideration of conducting an interim audit for the financial statements of the parent company could be considered. If that is the approach, details of how it will be achieved should be considered in planning the audit.

(3) Coordination of the work of component auditors:
Coordination of the work of the components in order to ensure that component audits are completed on time to feed into the audit of the consolidated financial statements.

(4) Timetable for the audit:
Details of when audit work will commence for both the parent company and the consolidated financial statements including the critical dates for the finalization of the audit. Including dates by which component audits should be concluded and audit reports issued.

(5) Use of work of an expert:
In view of the nature of the industry that Innovations Plc is involved in and the significant inventory and work in progress, the firm should consider engaging experts to value inventory and work in progress.

(6) The extent of the work that will be performed on the component financial statements:
The audit plan should include details of the involvement of the group engagement team in the work of component auditors. The significance of the component should be established considering group materiality levels and this will determine the extent of involvement of the group auditors with the work of component auditors.

(ii) Accounting treatment of revaluations in the audit of the financial statements of Innovation Plc.
The accounting for the revaluation of two properties in the financial statements of Innovation Plc is not correct as explained in the following:
(1) The revaluation loss for the property that is being revalued for the first time should not be credited to the revaluation surplus account. The loss should be recognized in the profit or loss account for the current year.
Management should be requested to correct this and charge the loss to profit or loss and the revaluation account should be credited by the K200 000
(2) In the case of a property that incurred a revaluation loss three years ago, part of the surplus in the current revaluation should be credited to the current year profit and this is equivalent to the loss charged to profit or loss at the first revaluation.

A correction in the financial statements should be made requiring that K200 000 of the revaluation surplus should be credited to the current year profit or loss account.

(iii) Audit procedures for related parties & related party transactions:

(1) Inquire from management and the directors whether transactions have taken place related parties that need to be disclosed by the applicable disclosure requirements.
(2) Obtain written representations from management of Innovations Plc. that it has disclosed all related party relationships and dealings to the auditors.
(3) Review the draft financial statements and ensure that there are adequate disclosures of related parties and related party transactions per accounting standards.
(4) Review minutes of management meetings and the director's meetings for information that may suggest related party relationships.
(5) When performing substantive audit procedures remain alert for any dealings with related parties for example companies with same directors or PIN identification numbers.
(6) Review previous year audit working papers for details of related parties that existed the previous year and ensue they are disclosed in the current year financial statements.

(c) Extent of work on components:
The work of the group auditors on the components in group audits will depend on the significance of the component considering group materiality levels. A component may be significant when considered in isolation but it may not be considered significant in the group context.

The group auditors are responsible for the opinion of the consolidated financial statements even though they include figures of components not audited by them. ISA 600 *Special considerations - audits of group financial statements* gives guidance in this area.

Quick Logistics:
Going by the contribution of Quick Logistics Ltd to the group at 15% towards group revenue and 15% towards profit after tax, the company can be considered as significant.

(i) Quick Logistics Ltd should be subject to a full audit performed by either the component auditor or the group auditor using component materiality level.
(ii) Evaluate the work of the component auditors and the group auditors may perform specific procedures on material amounts in the financial statements of the component and this may depend on the assessment of the component auditors by the group auditors.

Lobatse Wholesalers Ltd:
The contribution of Lobatse Ltd to the group at 3% of the total revenue and 0.5% to group profit after tax suggests that the component is insignificant.

The group audit team may in this case:

(i) Subject the financial statements of Lobatse Wholesalers Ltd to analytical procedures.
(ii) Perform a review of the work done by the component auditors.
(iii) In view of the fact that the component auditors of Lobatse Wholesalers Ltd operate in an environment where there is no regulation of the profession, the group auditors

may perform specific audit procedures for specific amounts in the financial statements.

It should be noted that even in the event that the opinion of the audit of the financial statements of Lobatse Wholesalers Ltd were to be modified, this may not affect the group opinion due to the insignificance of the company in a group context. The group auditors may bring the fact that the component auditors operate in an unregulated environment in the report to group management.

(d) Levels of assurance:
Auditors perform audit procedures so that they obtain evidence which they use as a basis for giving assurance to the interested parties. Auditors cannot give an absolute assurance and guarantee the accuracy of the financial statements. They can only issue reasonable or limited assurance which depend on the nature of the engagement with the client as explained below:

In an audit of financial statements:
An audit of financial statements is an example of an assurance engagement in which the auditor gives assurance on the subject matter to the interested parties.

The auditor gives a reasonable assurance when conducting an audit. A substantial amount of work is done in an audit compared to other engagements. A reasonable assurance is a high but not absolute levels of assurance.

In a review of the financial statements:
In a review engagement the auditor does not perform all the procedures that are conducted in an audit in obtaining evidence. The main methods used by the auditor are inquires and analytical procedures and audit risk is higher than in an audit.

The auditor gives a limited assurance which is given in a negative form by the auditor by stating that nothing has come to the attention of the auditor that the financial statements do not show a true and fair view.

SOLUTION TWO

(a) (i) Impact of non-compliance with laws & regulations on the financial statements:

Non-compliance with the new law regarding the levels of proteins added to stock feed will result in the company being liable to the penalties stipulated in the law and also risking the operating license being withdrawn.

The company will require to provide in the financial statements the amount that it would be charged as a penalty as a result of non-compliance. There is a possibility that the financial statements will be misstated on account of no provision being made or an understatement of the provision made.

(ii) Reporting requirements of non-compliance with laws and regulations:

(1) The matter should be discussed with management and seek confirmation that there has been excess use of proteins added to stock feed and that this has been going on despite the provisions of the statutory instrument.
(2) Bring this matter to the attention of those charged with governance and obtain their views with regards non-compliance.
(3) In view of the serious nature of the breach consider the public interest and consider reporting this to the regulators considering matters relating to confidentiality. If not sure seek legal advice on action that should be taken.
(4) If the impact of the non-compliance is serious and impacts the financial statements, consider the impact on the audit opinion and also possible disclosure in the audit report through the emphasis of matter or other matter paragraphs.

(b) Matters that to be included in the engagement letter:

(1) Details of the responsibilities of management for the preparation of the financial statements and putting in place internal controls to help prevent and detect fraud and error. It is clear management of Lima Farms Ltd does not understand its responsibility going by the complaint that the previous auditors did not assist in setting up internal controls.
(2) The scope of the year end audit and the fact that an interim audit will be conducted and management will provide the interim financial statements on time.
(3) Details relating to the use of an expert in conducting the audit and that the cost shall be reimbursed by Lima Farms Ltd. The audit team does not have the skills and competences to value inventory and work in progress.
(4) The fact that the audit will only commence on management making available the draft financial statements and the related schedules and that any delays will result in a delay in commencing and completing the audit.
(5) The fact that management has accepted to provide any written representations that may be required by the auditors as these will form part of the evidence.

(c) Extract of management letter:

Observations:

(1) Bank reconciliations are not being prepared on a monthly basis as required and further they are not independently checked when they are prepared.
(2) There were noted instances differences between physical inventory and book inventory for some lines of inventory. Changes to the book quality are made without investigations for the differences.

Implications:

(1) Not preparing bank reconciliations regularly as required could result in fraud being carried out without being detected resulting in loss of money for the company.
(2) The lack of investigating of differences in inventory between physical and book stock could result in misappropriation of inventory and covering it with the changes in book stock. This will result in loss of inventory for the company.

Recommendations:

(1) Bank reconciliations should be prepared monthly early in the following month and these should independently checked by another person and the checking should be evidenced in writing.
(2) All differences in inventory between book and physical stock should be investigate by staff not involved in the handling of inventory and all changes to book stock should be authorized in writing.

Responses of auditee:

(1) Agreed with the recommendation and this will be implemented immediately.
(2) All discrepancies in inventory will be investigated and authorized before amending the book stocks.

SOLUTION THREE

(a) Professional and ethical matters in the audit of the FS of Kalabo Ltd:

	Professional/ethical issue	**Safeguard**
1.	The fact that the majority of the audit team members will be auditing the financial statements of Kalabo Ltd could suggest that they may not have the necessary skills to audit financial statements of an entity in this industry. The lack of necessary skills is in breach of the fundamental principle of professional competence and due care.	The audit would be closely supervised by the Audit Manager. Quality control reviews by a member not involved in the audit will also be required.
2.	The provision of valuation services by the audit firm will give rise to a self-interest threat and also a self-review threat. The audit team members may lose their objectivity on account of fear of losing the income from consultancy and pensions are usually material in financial statements and auditing figures which the firm has been involved in determining will result in a self-review threat.	The valuation services should be done by staff who will not be involved in the audit of the financial statements of Kalabo Ltd.
3.	Offering of tax services to an assurance client could result in a self-interest threat. However, the offering of tax planning services does not give rise to a threat to the objectivity of the auditor unless is doing so the tax planning relates to figures contained in the financial statements.	The firm can go ahead and provide the requested services and if the risk is considered significant, a different team could be used in the tax planning and a different team to conduct the audit.
4.	There is a clear case of fraud and fraudulent financial reporting by the management of Kalabo Limited. The Chief Accountant is fully aware of this and since he is a member of ZICA he is required to abide by the fundamental principles. In this case his involvement is in breach of the fundamental principles of integrity and professional behavior as this brings the name of the profession in disrepute.	This matter should be brought to the attention of those charged with governance. The auditors should consider reposting this matter to the responsible party the ZRA and should reconsider the reliability of the evidence given by the Chief Accountant.
5.	The fact that the Engagement Partner owns 5% shares in a company that is in direct competition with Kalabo Ltd creates a self-interest on the part of the Engagement partner and also	A different Engagement Partner should be assigned to the audit of the financial statements of Kalabo Ltd. Further, there should be quality control reviews by someone that will not be

	there exists a conflict of interests on the part of the partner.	involved in the audit of the financial statements of Kalabo Ltd.

(b) Suggested materiality levels:

ISA 320 *Materiality in planning and performing an audit* gives guidance to the auditor in this area.

(1) Materiality for the financial statements as a whole should be computed at the planning stage of the audit. As a starting point use will be made of the profit before tax of K850 000 in computing the materiality level and this could be 5% of this figure before considering other factors.
K850 000 X 5% = K42 500 could be set as the materiality level for the financial statements as a whole.

(2) In view of the fact that the audit risk regarding accounting estimates is higher than that of the financial statements as a whole, a different materiality level will be set for this which will be lower than the materiality level for the financial statements as a whole.
Using professional judgment and in view of the fact that the audit risk related to accounting estimates is higher, the materiality level in the audit of accounting estimates could be set at K30 000 which is lower than that for the financial statements as a whole signifying the higher risk level.

(3) For both the materiality level for the financial statements as a whole and the materiality level for the accounting estimates, performance materiality levels should be set which will be lower than the materiality levels set as above.
The actual materiality levels that will be used in the audit referred to as performance materiality levels are set at below the materiality levels set at the planning stage. The objective of doing this is to reduce the risk that undetected misstatements could exceed the materiality levels set at the planning stage.
These could be set as follows:
Performance materiality for the financial statements as a whole = K35 000
Performance materiality for accounting estimates = K25 000

(4) During the audit and as a result of the poor operation of the internal controls, there will be need to review and revise the materiality levels computed at the planning stage of the audit. In view of the fact that internal controls are not operating effectively, the materiality levels will most likely be reduced to lower levels.
In view of increased audit risks the performance materiality levels could be revised as follows:
For the financial statements as a whole = K30 000
For the accounting estimates = K20 000

(c) Audit procedures on Value Added Tax:

(1) For a sample of sales invoices during the year examine the sales invoices and confirm that the value added tax charged is correct based on correct sales prices.

(2) Trace the value added to the selected sales invoices to the credit of the value added account.

(3) Extract all the purchases made from Kazungula Ltd and request for evidence of receipt of goods. This will help determine the extent of the fraud that will impact on the financial statements through inflated purchases figures.

(4) Obtain sample of other purchases made and examine the supporting documents to confirm accuracy of the input value added tax debited to the VAT account.

(5) Discuss the matter with management and establish how long it has been going on and confirm the extent of the fraud.
(6) Discuss the matter with those charged with governance and the fact that this is illegal and had legal implications with the Zambia Revenue Authority.
(7) Consider the need to bring this matter to the attention of the Zambia Revenue Authority considering the ethical principle of confidentiality and public interest.

SOLUTION FOUR

(a) (i) Suitable audit opinion in the audit of the FS of Batoka Ltd:

The matters that will be considered in arriving at an opinion are as follows:

(1) The amount of the uncorrected misstatements at K5 600 is far below the materiality level set for this audit. Assuming that the undetected misstatements do not result in a higher figure of uncorrected misstatements, this will not have an adverse impact on the opinion.
(2) It would appear that the preparation of the financial statements on a historical cost basis is appropriate. This will be useful in arriving at an appropriate opinion considering the existence of the material uncertainty.
(3) The level of disclosure of the material uncertainty by management in the financial statements and there are two likely outcomes as follows:
    (i) There being adequate disclosure of the material uncertainty in the financial statements by management in the notes to the financial statements.
    (ii) There being inadequate disclosure of the existence of the material uncertainty in the notes to the financial statements.

Appropriate opinion could either be:

An unmodified opinion – where there is adequate disclosure in the financial statements about the existence of the material uncertainty and that the preparation of the financial statements on a going concern basis is appropriate.

A modified opinion – Where the disclosure by management in the financial statements is inadequate but the basis of preparing the financial statements on a historical basis is appropriate.

In the event that it is inappropriate that the going concern basis of preparing the financial statements should have been used, the situation is different if the alternative basis should have been used.

In this case the audit opinion should be an adverse opinion on account of using an inappropriate basis for the preparation of the financial statements.

(ii) Extracts of audit report based on suggested opinion:

Unmodified opinion – Adequate disclosure

Opinion

In our opinion, the financial statements present fairly, in all material respects (or give a true and fair view) the financial position as at 31 March 2024 and its financial performance for the year then ended.

Basis of opinion

We conducted the audit in accordance with International Standards on Auditing. We believe that the audit evidence that we obtained is sufficient and appropriate to provide a basis for our opinion.

Uncertainty Related to Going Concern

We refer to note xx of the financial statements which indicates that the company borrowed K10 million which it requires to start servicing and on account of its failure to service the loan there exists a material uncertainty with regards the ability of the company as a going concern. Our opinion is not modified in respect of this matter.

(1) Qualified opinion – Inadequate disclosure

Qualified opinion
In our opinion, except for the inadequate disclosure referred to in the Basis for Qualified Opinion paragraph, the accompanying financial statements present fairly, in all material respects (or give a true and fair view of) the financial position of the company and of its financial performance for the year then ended.

Basis for Qualified Opinion
The company has failed to service the loan with the bank which has threatened to enforce the security for the loan. This situation shows that a material uncertainty exists that cast significant doubt on the company's ability as a going concern. The financial statements do not adequately disclose this matter.

(2) Adverse Opinion – Inappropriate use of going concern basis:

Adverse Opinion
In our opinion, because of the significance of the matter discussed in the Basis for Adverse Opinion paragraph, the financial statements do not present fairly (or do not give a true and fair view) the financial position as at 31 March 2024 and its financial performance for the year then ended.

Basis for Adverse Opinion:
The basis of preparing the financial statements using the going concern basis is incorrect and because of the significance of this matter an adverse modified opinion has been issued.

(b) Audit risks and responses in the audit of the FS of Lima Plc:

	Audit risk	**Suitable response**
1.	The legal action by members of the community may result in the company being found guilty and required to pay compensation to the affected people. If the conditions in IAS 37 are met the company is expected to make a provision for compensation in the financial statements. There is a risk that the provision may not be made or the provision made may be inadequate.	Discuss with management and those charged with governance and establish their assessment regarding the likely outcome of the court case. Request permission from Lime Plc. to communicate with Chishimba Chambers to seek their view on the likely outcome of the court case.
2.	Lime Plc. is a publicly listed company and it is required that it should comply with the listing requirements. There are sanctions against companies that do not follow the	During the cause of the audit, the audit team members should remain alert for any no adherence with the listing requirements and also obtain written representations

	listing rules and in extreme cases this could result in the delisting of the shares impacting the going concern ability of the company.	from management that the company is compliant with the listing requirements.
3.	Loss of the market share from 50% market share 30% resulting in liquidity problems can impact the ability of the company continuing as a going concern. In view of the fixed costs the company is likely to face liquidity problems that may result in it ceasing operating. This could have implications on the basis upon which the financial statements are prepared.	The audit team should remain alert for any indication of going concern problems the company may be facing. Discuss with management on how it hopes to deal with the liquidity problems.
4.	Defaulting in repaying the loan may result in the bank enforcing its security and if the equipment is ceased then the company will cease operations.	Review the conditions in the loan agreement and review the correspondence with the bank concerning the loan. Inquire of management of the efforts being made to repay the loan.
5.	The company has continued extending credit to its customers despite the deteriorating liquidity problems. Further, 72% of the receivables are overdue with 53% being over 30 days. There is a risk that the financial statements may be misstated because of irrecoverable debts. The allowances for receivables may be understated.	Review the adequacy of the allowance for receivable and confirm that it has been calculated in line with the relevant financial reporting standard. The audit team should consider third party confirmation to the majority of receivables that are overdue.
6.	Lime Plc. is outsourcing security services from a related party security firm. Transactions with the security firm should be quantified and disclosed in the financial statements. There is a risk that. Lime Plc. may not disclose the related party relationship as well as the extent of dealings with the security company as per accounting standard requirement.	Emphasize to the audit team the need to remain alert on any transactions with the security company any other related parties that may not have been disclosed. There will be need to inspect the draft financial statements to ensure that necessary disclosures have been made if not request management to disclose as required.
7.	This is the first year that the firm will be auditing the financial statements of Lime Plc. it means the previous year financial statements were audited by different auditors. There is a risk that the opening balances may be misstated resulting in the misstatement of the current year figures.	There will be need to perform audit procedures on the opening balances including a review of post year transactions that may give evidence of the closing balances for the previous year.

SOLUTINE FIVE

(a) (i) Impact of big data and data analytics on audit fee & sampling risk:

Impact on the audit fee:

The availability of data in computer legible form can enable the auditors to take advantage of this by using modern techniques in auditing compared to the traditional manual methods. The auditors can use Computer Assisted Audit Techniques to perform procedures that would otherwise would have been performed manually. Because of high speed that are available, the auditors should be able to spend less time conducting audits and this should result in cost savings which can be passed on to the client. The firm should be able to make use of these techniques and be able to reduce the fee charged to Mukuni Plc.

Impact on sampling risk:

Sampling risk is the risk that the conclusions that could be reached if all transactions and balances are tested by the auditors will be different from the conclusions based on sample results. The audit risk that the auditors may issue an inappropriate opinion is high on account that the auditors use samples in arriving at conclusions. Through the use of big data and data analytics, the auditors could test 100% of the transactions/balances and therefore eliminate sampling risk. The auditors need not worry about the operating effectiveness of the internal controls and this also results in less time spent in view of the fact that does not require to evaluate the internal controls.

(ii) Audit procedures on summary of key financial results:

The summary of key financial results contained in the documents containing the financial statements are considered as other information and guidance is given by ISA 720 *The auditor's responsibility in relation to other information in documents containing audited financial statements.*

The objective of the work that will be done on the other information is to obtain evidence that there are no inconsistences between the other information and the evidence obtained during the audit.

(1) The auditors will consider reviewing the key performance indicators included and ensure that they are not inconsistent with the evidence obtained from the financial statements.
(2) Read through the narrative accompanying the key performance indicators and look out for any inconsistences with the results in the financial statements.

(iii) Reporting requirements for other information in the audit report:

ISA 720(Revised) *The auditor's responsibilities relating to other information in documents containing audited financial statements* gives guidance to the auditors in this area.

There is a separate paragraph in the audit report that deals with other information contained in the financial statements and the paragraph will include the following:

(1) A statement to the effect that management is responsible for the other information that it prepares and that it does not include the financial statements.

(2) The fact that the opinion of the auditors does not include the other information and that no assurance is given on the other information.
(3) An explanation of the duty of the auditors with regards the other information which is to read through and identify any inconsistences with the financial statements and other evidence obtained.
(4) If there is uncorrected other information contained in the documents containing the financial statements, a description of the uncorrected misstatement should be included in the Other matter information paragraph.

(b) (i) Assessment of management's assessment of going concern:
Management's conclusion regarding the ability of Mukuni Plc. as a going concern appears inappropriate considering the following factors:
(1) The harsh economic situation may negatively impact the operations of Mukuni Plc. unless there will be an economic turndown in the near future. Company operations can be impacted by the general economic situation in the environment in which they operate.
(2) The withdrawal of credit facilities by the suppliers of Mukuni Plc. and the increasing payables days suggest that the company is facing serious liquidity problems. If the company cannot get the materials that it requires then there will be operational challenges and this will result in customer dissatisfaction resulting in customers switching suppliers.
(3) The deteriorating current ratio is a sign that the company would not be able to pay its current liabilities if called upon.

The conclusion that the company is a going concern by management is inappropriate. There is need to discuss the appropriateness of the preparation of the financial statements on the going concern basis. Management should be requested to prepare the financial statements on a break up basis.

(ii) Subsequent events in the audit of the FS of Mukuni Plc.:

Item 2
The fact that the receivable has filed for liquidation suggests that the company has no ability to pay its debts. Had this been known at the period end an allowance for receivables would have been provided.

Notwithstanding the fact that the audit report has been signed this is an adjusting event requiring that the financial statements should be adjusted and a new audit report issued after performing audit procedures on the adjustments.

This matter should be discussed with management and an agreement reached to make adjustments to the financial statements.

Item 3
The inventory existed at the period end and was included in the closing inventory.
The fire that gutted the inventory worth K1 million is a non-adjusting event that took place after the period end. There is no reason to amend the financial statements because the inventory existed at 30 June 2024 and the opinion will be for the financial statements to that date.

Management should be asked to reverse the amendment made and the inventory in the financial statements should include the K1 million worth of inventory. If management declines to reverse the removal of the value of the gutted inventory the materiality of the matter should be considered and may result in the modification of the audit opinion.

Management may wish to include the fact that inventory worth K1.3 million was gutted in the notes to the financial statements.

END OF SUGGESTED SOLUTIONS

CHARTERED ACCOUNTANT ZAMBIA

CA ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA 3.4: ADVANCED TAXATION

THURSDAY 12 JUNE 2025

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

INSTRUCTIONS TO CANDIDATES

1. You have fifteen (15) minutes reading and planning time. Use it to study the examination paper carefully so that you understand what to do in each question. DO NOT write in your answer booklet during this TIME.
2. This paper is divided into TWO (2) sections:

   Section A: ONE **Compulsory** Question. Section B: FOUR (4) Optional Questions. Attempt any THREE (3) questions from section B.
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 phone**s 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 7 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
K1 to K61,200	first K61,200	0%
K61,201 to K85,200	next K24,000	20%
K85,201 to K110,400	next K25,200	30%
Over K110,400		37%

Income from farming for individuals

K1 to K61,200	first K61,200	0%
Over K61,200		10%

Company Income Tax rates

On income from manufacturing and other	30%
On income from farming and agro-processing	10%
On income from mineral processing	30%
On income from mining operations	30%

Mineral Royalty

Mineral Royalty on Copper

Price range per tonne	Taxable amount	Rate
Less than US$4,000 per tonne	First US$3,999	4.0%
US$4,000 or more but less than US$5,000 per tonne	Next US$1,000	6.5%
US$5,000 or more but less than US$7,000 per tonne	Next US$2,000	8.5%
US$7,000 or more per tonne	Balance	10.0%

Mineral Royalty on other minerals

Type of mineral	Mineral Royalty Rate
Cobalt and vanadium	8% on norm value
Base metals (other than copper, cobalt and vanadium)	5% on norm value
Energy and industrial minerals	5% on gross value
Gemstones	6% on gross value
Precious metals	6% on norm value

Capital allowances

Implements, plant and machinery and commercial vehicles:

Wear and tear allowance –	Standard wear and tear allowance	25%
	Wear and tear allowance if used in manufacturing and leasing	50%
	Wear and tear allowance if used in farming and agro-processing	100%
	Wear and tear allowance if used in Mining and Mineral processing	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	
First K12,000	0%
K12,001 to K5,000,000	5%

Tax on rental income

Annual Rental income band	**Taxable amount**	
K1 to K12,000	First K12,000	0%
K12,001 to K800,000	Next K788,000	4%
Above K800,000		16%

Presumptive Tax for transporters

Seating capacity	**Tax per annum**	**Tax per quarter**
	K	K
Less than 12 passengers and taxis	1,296	324
From 12 to 17 passengers	2,592	648
From 18 to 21 passengers	5,184	1,296
From 22 to 35 passengers	7,776	1,944
From 36 to 49 passengers	10,368	2,592
From 50 to 63 passengers	12,960	3,240
From 64 passengers and over	15,552	3,888

Property Transfer Tax

On the realised value of land (including buildings, structures or improvements thereon)	8%
On the realised value of shares	8%
On the realised value of intellectual property	8%
On the realised value of a mining right for an exploration license	8%
On the realised value of a mining right for a mining licence	10%
On the realised value tax on realised value of 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 over 5 years	
Motor vehicles for the transport of ten or more persons, including the driver	**Customs duty**	**Excise duty**	**Customs duty**	**Excise duty**
	K	K	K	K
Sitting capacity of 10 but not exceeding 14 persons including the driver	20,090	25,112	10,045	12,556
Sitting capacity exceeding 14 but not exceeding 32 persons	43,984	0	15,639	0
Sitting capacity of 33 but not exceeding 44 persons	97,742	0	21,992	0
Sitting capacity exceeding 44 persons	122,177	0	48,871	0

	Aged 2 to 5 years		Aged over 5 years	
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	14,113	12,231	8,065	6,989
Cylinder capacity exceeding 1000 cc but not exceeding 1500 cc	18,145	15,726	9,678	8,387
Cylinder capacity exceeding 1500 cc but not exceeding 2500 cc	18,695	24,304	9,518	12,373
Cylinder capacity exceeding 2500 cc but not exceeding 3000 cc	20,395	26,514	11,897	15,466
Cylinder capacity exceeding 3000 cc	25,494	33,142	13,597	17,676
Hatchbacks				
Cylinder capacity not exceeding 1000 cc	12,097	10,484	8,065	6,989
Cylinder capacity exceeding 1000 cc but not exceeding 1500 cc	16,129	13,979	9,678	8,387
Cylinder capacity exceeding 1500 cc but not exceeding 2500 cc	16,996	22,095	9,518	12,373
Cylinder capacity exceeding 2500 cc but not exceeding 3000 cc	18,695	24,304	11,897	15,466
Cylinder capacity exceeding 3000 cc	22,095	28,723	13,597	17,676
Station wagons				
Cylinder capacity not exceeding 1000 cc	14,113	12,231	8,065	6,989
Cylinder capacity exceeding 1000 cc but not exceeding 1500 cc	18,144	15,725	9,678	8,387

Cylinder capacity exceeding 1500 cc but not exceeding 2500 cc	18,695	24,304	10,198	13,256
Cylinder capacity exceeding 2500 cc but not exceeding 3000 cc	20,395	26,514	11,897	15,466
Cylinder capacity exceeding 3000 cc	25,494	33,142	13,597	17,676
SUVs				
Cylinder capacity not exceeding 1000 cc	17,598	15,252	10,559	9,151
Cylinder capacity exceeding 1000 cc but not exceeding 1500 cc	20,463	17,735	12,278	10,641
Cylinder capacity exceeding 1500 cc but not exceeding 2500 cc	23,794	30,933	14,277	18,560
Cylinder capacity exceeding 2500 cc but not exceeding 3000 cc	27,193	35,351	17,540	22,802
Cylinder capacity exceeding 3000 cc	32,292	41,980	20,395	26,514

	Aged 2 to 5 years		**Aged over 5 years**	
Motor vehicles for the transport of goods	**Customs duty**	**Excise duty**	**Customs duty**	**Excise duty**
	K	K	K	K
Single cab				
GVW exceeding 1.0 tonne but not exceeding 1.5 tonnes	24,777	10,737	9,911	4,295
GVW exceeding 1.5 tonnes but not exceeding 3.0 tonnes	29,732	12,884	17,344	7,516
GVW exceeding 3.0 tonnes but not exceeding 5.0 tonnes	34,687	15,031	19,821	8,589
Double cabs				
GVW not exceeding 3 tonnes	34,687	15,031	27,254	11,810
GVW exceeding 3.0 tonnes but not exceeding 5.0 tonnes	38,156	16,534	29,980	12,991
Panel vans				
GVW not exceeding 1.0 tonne	15,089	6,539	8,622	3,736
GVW exceeding 1.0 tonne but not exceeding 1.5 tonnes	17,344	7,516	9,911	4,295
GVW exceeding 1.5 tonnes but not exceeding 3.0 tonnes	19,821	8,589	17,344	7,516
GVW exceeding 3.0 tonnes but not exceeding 5.0 tonnes	24,777	10,737	19,821	8,589
Trucks				
GVW up to 2 tonnes	15,715	12,048	7,246	5,556
GVW exceeding 2.0 tonnes but not exceeding 5.0 tonnes	17,461	13,387	8,731	6,694
GVW exceeding 5.0 tonnes but not exceeding 10.0 tonnes	27,938	21,419	10,477	8,032

GVW exceeding 10.0 tonnes but not exceeding 20.0 tonnes	34,923	26,774	13,271	10,174
GVW exceeding 20 tonnes	58,645	0	21,992	0

NB: Import VAT is added to the sum of VDP, customs duty and excise duty. It is determined at the standard rate of 16%

Surtax

On all motor vehicles aged more than five 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</u> – (COMPULSORY)

For the purpose of this question, you should assume that today's date is 17 December 2024 and that the earnings ceiling for the purposes of NAPSA contributions is K409,968.

Background

Julius Mwiimbe, a Zambian resident, is employed at MPP Plc as Chief Executive Officer (CEO). Julius's current basic salary is K220,000 per annum and he is entitled to housing allowance of 30% of his basic salary. The company pays his children's education fees amounting to K15,000 per school term.

He is provided with a Toyota Hilux Double Cab Van, with a cylinder capacity of 2,600cc, on personal to holder basis. The van was acquired in 2021 at a cost of K600,000. The company pays for all motor vehicle maintenance expenses amounting to K7,000 per month. It has been agreed with the Commissioner General that Julius has private use of 40% in the motor vehicle.

The company deducts employees NAPSA contributions at the rate of 5% of his gross employment earnings and employees' National Health Insurance Management Authority (NHIMA) Contributions at the rate of 1% of his basic salary. The company further contributes employers' NAPSA contributions of 5% of his gross employment earnings and employers NHIMA Contributions of 1% of his basic salary. The company additionally pays skills development levy of 0.5% of his gross employment earnings.

Julius Mwiimbe has received an offer of employment from KMC Plc a Zambian resident company. If Julius accepts the offer, he will be required to commence work on 1 January 2025.

In order to retain him; the directors of MPP Plc are considering making the following amendments to his current remuneration package.

Proposed changes to current remuneration package at MPP Plc

The company is proposing a salary increment of 40% of the current basic salary with effect from 1 January 2025. Under the proposed remuneration package, he will no longer be entitled to housing allowance, but instead he will be accommodated in a company owned house which was acquired in 2019 at a cost of K3,600,000. If let out to any other person, the company would generate rental income of K15,000 (gross) per month throughout the year 2025. The company will pay for all the ancillary services relating to the house which will amount to K11,200 per month.

It is proposed that he will additionally be entitled to a general-purpose bonus amounting to K6,400 per month with effect from 1 January 2025. All other conditions of service will remain unchanged and the company will continue to make all statutory deductions and contributions on behalf of Julius.

Offer of employment from KMC Plc

If he accepts the offer of employment from KMC Plc, he will commence work on 1 January 2025. He will be entitled to an annual salary amounting to K320,000. The company will pay him a housing allowance amounting to K15,000 per month. He will start renting a house paying gross monthly rentals of K5,700 on 1 January 2025.

He will use his privately owned Toyota Land Cruiser Car which he acquired a year ago at a cost of K600,000. The car has a cylinder capacity of 2,800cc and he will use it for both business and private purposes. It is expected that he will use the car 40% for private purposes. He will incur motor vehicle maintenance expenses amounting to K7,000 per month. The company will reimburse him the cost of motor vehicle maintenance amounting to K7,000 per month. Additionally, the company will pay him a fuel allowance amounting to K1,300 per month.

The company will further pay his subscription at a local fitness gym amounting to K1,500 per annum. He will be provided with free meals at the company's staff canteen. The cost to the company of the meals to Julius is expected to be K3,000 per month.

KMC Plc will deduct employees NAPSA contributions of 5% of his gross employment earnings and employees' NHIMA Contributions at a rate of 1% of his basic salary.

The company will also contribute employers' NAPSA contributions of 5% of his gross employment earnings and employers NHIMA Contributions (NHISCs) of 1% of his basic salary. The company will additionally pay skills development levy of 0.5% of his gross employment earnings.

Required:

(a) Assuming that Julius accepts the proposed amendments to his current package and stays with MPP Plc:

(i) Calculate the amount of income tax payable for the tax year 2025. (5 marks)

(ii) Calculate Julius's net income after statutory deductions and other relevant expenses for the tax year 2025. (4 marks)

(b) Assuming that Julius accepts the offer of employment from KMC Plc:

(i) Calculate the amount of income tax payable for the tax year 2025. (7 marks)

(ii) Calculate Julius's net income after statutory deductions and other relevant expenses for the tax year 2025. (6 marks)

(c) Based on your computations in parts (a) (ii) and (b) (ii) above, advise Julius as to whether he should stay with MPP Plc and accept the proposed package or he should accept the offer of employment from KMC plc. (2 marks)

(d) Compute the amount of the additional tax payable or tax savings arising for MPP Plc from the proposed package to Julius and show the net after tax cash flow position of the company. (9 marks)

(e) Compute the amount of the additional tax payable or tax savings arising for KMC Plc as a result of their offer to Julius and show the net after tax cash flow position of the company. (7 marks)

[Total: 40 marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt any THREE (3) questions.

QUESTION TWO

Kwacha Mining Corporation (KMC) is a company engaged in the extraction and sale of different types of minerals in Zambia. KMC Ltd is a subsidiary of a foreign based multinational mining company. The group prepares financial statements in United States Dollars. The following is the extract of the statement of profit or loss for the year ended 31 December 2025:

KMC MINING CORPORATION

STATEMENT OF PROFIT OR LOSS FOR THE YEAR ENDED 31 DECEMBER 2025

	Note	**K' 000**
Gross profit		603,600
Operating expenses	(1)	(169,377)
Finance cost		(320,000)
Net foreign exchange gains	(2)	169
Other income	(3)	19,950
Profit for the year		134,342

The following additional information is available:

Note 1: Operating expenses

Operating expenses include environmental restoration costs of K9,000,000, mineral exploration expenses of K4,500,000, staff wages of K24,000,000, drilling expenses of K6,500,000, expenditure on construction of a secondary school in the mining township amounting to K15,000,000, expenditure on the construction of a police post in a council town outside the mining township of K6,000,000, depreciation charges of K48,000,000 and expenditure incurred on conducting aerial and geographical surveys of K1,620,000. The balance represents miscellaneous allowable business expenses.

Note 2: Net Foreign Exchange gains

These include a foreign exchange gain of K25,000 arising on the settlement of a foreign trade payable, a foreign exchange gain of K224,000 on translation of the fair value of investment property held in a foreign country at the year end and a foreign exchange loss of K80,000 on translating a five-year loan obtained from a foreign financial institution.

Note 3: Other income

Other income comprises net dividends from non-mining Zambian resident companies listed on the Lusaka Securities Exchange.

Note 4: Mineral Royalty

The mineral royalty paid by the company during the tax year 2025, has not been accounted for in the statement of profit or loss shown above. The company made the following sales of minerals in the tax year 2025:

Copper

Mineral	***Quantity***	***Average LME cash price per tonne for the year***
Copper	2,000 tonnes	US$9,900

The relevant average Zambian Kwacha per US dollar rate approved by the Commissioner General was K18.90/US$1, throughout the year.

Other Minerals

Mineral	***Norm value***	***Gross value***
	K'000	K'000
Gemstones (Emaralds)	250,000	260,000
Other Base metals (Aluminium)	180,000	150,000
Precious Metals (Gold)	120,000	135,000

Note 5: Implements, plant and machinery

At 1 January 2025, the company held the following capital assets which were imported from foreign suppliers and paid for in US dollars a year ago: The original costs of the assets translated into Zambian kwacha on the date of purchase were as follows:

Asset	Cost
Mine excavation equipment	K3,000,000
Mineral exploration equipment	K2,000,000

During the year the company constructed a new mineral processing plant at a cost K35,000,000. This expenditure was incurred and paid for in Zambian Kwacha.

Note 6: Unrelieved mining loss

At 1 January 2025, the company had an unrelieved tax loss brought forward from the previous year of US$900,000.

Note 7: Indexation formula

The indexation formula for capital allowances and mining losses, where applicable, is given below:

$$1+\frac{(R_2-R_1)}{R_1}$$

The following Zambian Kwacha per US Dollar (ZMW/US$) average BOZ mid-exchange rates should be used where applicable:

Accounting Period	*Average BOZ Mid-Exchange rate*
	ZMW/ US$
Y/e 31 December 2024	K18.00
Y/e 31 December 2025	K18.90

Required:

Compute the adjusted mining profit and company income tax payable by Kwacha Mining Corporation for the tax year 2025. **[Total: 20 Marks]**

QUESTION THREE

For the purposes of this question you should assume today's date is 31 December 2025 and that the tax rates for the tax year 2025, apply to all the relevant tax years.

Machelyn Mitchel has been employed as the Public Relations Manager at Keltex Ltd, a Zambian resident private limited company, on a contract which commenced on 1 July 2023. As an incentive to retain her services, Keltex Ltd on 1 July 2023, granted Machelyn an option to purchase 200,000, K0.50 ordinary shares in the company at an exercise price of K5 per share, being the market price per share on that date, under an unapproved share option scheme. The grant was on condition that she could only exercise the options once she had been employed by Keltex Ltd for at least two years.

In the tax year 2025, Machelyn was entitled to gross annual salary of K660,000 and transport allowance amounting to K3,500 per month.

On 1 July 2025, Machelyn exercised the option to buy 200,000 shares when the share price on that date was determined to be K6.50 per share. On 1 December 2025, she sold 20,000 of her shares for K7.00 per share being the market value of each share on that date.

During the tax year 2025, Machelyn received the following investment income from Zambian and foreign sources:

Investment income from Zambian Sources

Machelyn received the following investment income from Zambian sources in the tax year 2025:

	K
Dividends from Keltex Ltd	15,300
Fixed deposit interest from a Zambian Bank	5,000

These were the actual amounts received by Machelyn. Withholding Tax had been deducted at source where applicable.

Investment income from foreign sources

Machelyn holds various investments in a foreign country known as Escovia. The currency of Escovia is the Escovian dollar (E$). The following investment income was deposited in her Zambian bank account in respect of these investments:

Dividends from Escovian companies	E$1,200
Income from letting of property in Escovia	E$4,800
Bond interest from Escovian companies	E$3,000

Both the dividends from Escovia and income from letting of property in Escovia are net of withholding tax at the rate of 40% deducted in Escovia, whilst bond interest from Escovian banks is net of withholding tax at the rate of 25% deducted in Escovia. There is no double taxation agreement between Zambia and Escovia. Any Double taxation relief available should be given by means of unilateral credit relief. An exchange rate of K17.50 per E$ should be used were applicable.

Other information

During the tax year 2025, the company deducted income tax under PAYE amounting to K219,111, employee's National Health Insurance Management Authority (NHIMA) contributions of K6,600, from her emoluments and contributed employer's NHIMA contributions amounting to K6,600. The company additionally deducted employee's NAPSA contributions amounting to K17,890 from her earnings and paid employer's NAPSA contributions of K20,498 on her behalf.

Required:

(a) Advise Machelyn of the taxation implications for her arising from the following:

(i) the grant of the 200,000 options over the shares of Keltex Ltd on 1 July 2023 and her subsequent exercise of the options on 1 July 2025. (4 marks)

(ii) The sale of 20,000 of her shares in Keltex Ltd on 1 December 2025. (2 marks)

(b) Explain how your answer in (a) (i) and (a) (ii) above would have been different if the share option scheme being operated by Keltex Ltd was approved for tax purposes. (3 marks)

(c) Compute the income tax payable by Machelyn for the tax year 2025. (11 marks)

[Total: 20 Marks]

QUESTION FOUR

For the purposes of this question, you should assume that today's date is 30 November 2024. The question is divided into two parts.

PART A

You are employed in a firm of Chartered Accountants. You are presented with the following matters for one of your clients, ABZ Plc, that need your attention.

ABZ Plc is a Zambian resident company engaged in manufacturing. The company is registered for Value Added Tax (VAT) purposes. As part of its expansion program, the directors are considering opening another factory. The Directors have approached DelCon Ltd, a construction and property development company which has offered to either sell the factory building out rightly to ABZ plc at a price of K1,910,000 (VAT exclusive) or lease out the factory to the company under an operating lease.

The selling price of K1,910,000 quoted by DelCon Ltd comprises the following items:

	K
Land	200,000
Staff canteen	210,000
Administration offices	300,000
Factory building	1,200,000
Total cost	1,910,000

If ABZ plc purchases the building out rightly, then the company will have to raise the required finance by either issuing loan notes or making a rights issue of ordinary shares.

The following additional information is available about each of the options available to the company.

Option one
The company can issue 12% loan notes with a par value of K1,910,000 to raise the required finance to purchase the asset out rightly after incurring issue costs of K40,000, on 1 January 2025. The effective rate of interest on the loan notes is 12% per annum and the loan notes will be redeemed on 1 January 2030.

Option two
The company can make a rights issue of the company's ordinary shares to existing shareholders on 1 January 2025, to raise the finance of K1,910,000 required to purchase the factory out rightly after incurring issue costs of K100,000.

Option three
The building can be leased. Under this option the company will lease the building under an operating lease on 1 January 2025. The company will be required to pay annual lease rentals of K406,000 (inclusive of VAT) for five (5) years. The lease payments will be made on 31 December each year commencing on 31 December 2025.

PART B
Ethel Lubunda is the Chief Executive Officer of ABZ Plc. She is thinking of making investments in corporate bonds and ordinary shares of Zambian companies listed on the Lusaka Securities Exchange and Government of the Republic Zambia (GRZ) Bonds, or financial instruments of Zambia resident companies.

Required:

(a) Advise the Directors of ABZ Plc of the income tax and VAT implications of each of the above financing options they are considering. Your answer should include appropriate calculations where applicable. (14 marks)

(b) Advise Ethel Lubunda of the taxation implications of investing in each of the following financial securities:

(i) Loan notes of Zambian companies. (2 marks)

(ii) Equity shares of Zambian companies listed on the Lusaka Securities Exchange. (2 marks)

(iii) GRZ bonds. (2 marks)

[Total: 20 Marks]

QUESTION FIVE

You should assume that today's date is 20 August 2026 and the Bank of Zambia discount rate is 9% per annum.

You are employed in a firm of Chartered Accountants. Kitwe Ltd is a long standing client of your firm and you are responsible for tax affairs of Kitwe Ltd.

Kitwe Ltd operates a retail business and at the beginning of the tax year 2025, the taxable business profit was estimated at K700,000. However, the actual taxable business profits for the tax year 2025 was K800,000.

Astridah is a good friend of yours and she owns 8% of the ordinary shares in Kitwe Ltd. She is currently raising funds for her son's university fees in Germany. She has requested Kitwe Ltd to assist her with an interest free loan of K250,000 to cover the tuition fees and accommodation.

The Finance Director for Kitwe Ltd submitted the return of provisional income tax in respect of the tax year 2025 on 31 March 2025 and also paid the first instalment on the same day. The provisional income taxes for the second and third quarters of 2025 were paid on 30 June 2025 and 30 September 2025 respectively, whilst the final instalment of provisional income tax relating to the last quarter of 2025 was paid on 30 June 2026.

Kitwe Ltd also owns and lets out several shops and during the tax year 2025, the company received gross rental income amounting to K920,000, which was generated evenly throughout the year. The Finance Director has informed you that the Zambia Revenue Authority (ZRA) recently raised assessments for underpayments of income tax for the previous two tax years, the tax years 2023 and 2024 totalling K180,000. Following unsuccessful appeals to the Commissioner General, the company has now made an appeal to the Tax Appeals Tribunal (TAT). The hearing is scheduled for next week and Kitwe Ltd has requested your firm to represent it in this tax dispute at an extra fee.

At a recent board meeting, the directors of Kitwe Ltd requested your firm to urgently attend to all the tax issues raised and give a detailed report.

Required:

(a) Explain four (4) ethical threats relating to the tax assignment at Kitwe Ltd and recommend any appropriate course(s) of action that should be taken. (8 marks)

(b) Advise the Finance Director, using appropriate supporting computations, of the tax implications of the provision of an interest free loan to Astridah during the tax year 2025. (4 marks)

(c) Advise the Directors on the tax treatment of rental income and calculate the amount of tax payable on rental income for the tax year 2025. (3 marks)

(d) Advise the directors of Kitwe Ltd's exposure to penalties and interest. Your answer should include a computation of the amount of penalties and interest if any. (5 marks)

[Total: 20 Marks]

END OF PAPER

CA 3.4: ADVANCED TAXATION - SUGGESTED SOLUTIONS

SOLUTION ONE

(a) If he accepts the proposed package at MPP Plc.

(i) Income tax payable for the tax year 2025

	K
Basic salary: K220,000 x 1.40	308,000
Children's education fees: K15,000 x 3	45,000
Ancillary services relating to the house	
(K11,200 x 12)	134,400
General purpose allowance:	
(K6,400 x 12)	76,800
Gross emoluments	564,200
Computation	
First K110,400	12,360
Excess (K564,200 – K110,400) @37%	167,906
Income tax payable	180,266

(ii) Net income after tax for the tax year 2025

	K
Gross emoluments	564,200
Less:	
Income tax payable	(180,266)
Employee's NAPSA: K409,968 x 5%	(20,498)
Employee's NHISC: K308,000 x 1%	(3,080)
Net income	360,356

(b) If he accepts the offer of employment at KMC Plc

(i) Income tax payable for the tax year 2025

	K
Basic salary	320,000
Housing allowance: K15,000 x 12	180,000
Fuel allowance: K1,300 x 12	15,600
Car maintenance expenses:	
(K7,000 x 12)	84,000
Gym subscription	1,500
Gross emoluments	601,100
Less:	
Motor car expenses	
(K7,000 x 12 x 60%)	(50,400)
Capital allowances	
(K600,000 x 20% x 60%)	(72,000)
Taxable income	478,700
Computation	
First K110,400	12,360
Excess (K478,700 – K110,400) @37%	136,271
Income tax payable	148,631

(ii) Net income after tax for the year tax year 2025

	K
Gross emoluments	601,100
Less:	
Income tax payable	(148,631)
Motor car expenses (K7,000 x 12)	(84,000)
Rentals (K5,700 x 12)	(68,400)
Employee's NAPSA (K409,968 x 5%)	(20,498)
Employee's NHISC (K320,000 x 1%)	(3,200)
Net income	276,371

(c) Julius should accept the proposed remuneration package at MPP Plc and reject the offer of employment from KMC Plc. This is so because the net income under the proposed package at MPP Plc is K83,985 (K360,356 – K276,371s) higher than the net income under the offer from KMC Plc.

(d) Additional income tax payable/(saving) by the company
Proposed package by MPP Plc

	K
Cash allowable deductions	
Gross emoluments payable to Julius	564,200
Motor car running expenses	
(K7,000 x 12)	84,000
Employer's NAPSA (K357,792 x 5%)	20,498
Employer's NHISC (K308,000 x 1%)	3,080
Skills development levy	
(K564,200 x 0.5%)	2,821
Cash allowable expenses	674,599
Capital allowances	
(K600,000 x 20%)	120,000
Total allowable	794,599
Disallowable expenses	
Personal-to-holder car benefit	(43,200)
Free accommodation benefit	
(K564,200 x 37%)	(208,754)
Net allowable deductions	542,645
Income tax saving (K542,645 x 30%)	162,794
Cash flow position	
Total cash allowable deductions	671,991
Income tax savings	(162,794)
Net cash outflow	511,805

(e) Remuneration package offered by KMC Plc to Julius

	K
Cash allowable deductions	
Gross emoluments payable to Julius	601,100
Employer's NAPSA (K357,792 x 5%)	20,498
Employer's NHISC (K320,000 x 1%)	3,200

Skills development levy (K601,100 x 0.5%)	3,006
Total cash allowable deductions	627,804
Disallowable expenses	
Canteen expenses (K3,000 x 12)	(36,000)
Net allowable deductions	591,804
Income tax saving (K591,804 x 30%)	177,541
Net cash flow position	
Cash allowable deduction	625,196
Canteen expenses	36,000
Income tax savings	(177,541)
Net cash outflow	486,263

SOLUTION TWO

(a) COMPUTATION OF TAXABLE PROFIT FOR THE YEAR ENDED 31 DECEMBER 2025

	K'000	K'000
Profit for the year		134,342
Add:		
Construction of school	15,000	
Police post	6,000	
Depreciation	48,000	
Forex loss on foreign loan	80	
		69,080
		203,422
Less		
Mineral royalty (W1)	57,695	
Capital allowances (W2)	11,050	
Dividends	19,950	
Forex gain on foreign investment	224	
		(88,919)
Taxable profit before interest adjustment		114,503
Disallowed interest		175,249
Taxable mining profit before loss relief		289,752
Loss relief (W)		(17,010)
Final taxable mining profits		272,742
Company income tax payable		
(K272,742 x 30%)		81,823

COMPUTATION OF MINERAL ROYALTY TAX ON COPPER (K'000)

	K'000
Mineral royalty tax on copper	
First ($3,999 x 2,000 x K18.90 x 4%)	6,046
Next ($1,000 x 2,000 x K18.90 x 6.5%)	2,457
Next ($2,000 x 2,000 x K18.90 x 8.5%)	6,426
Excess ($2,901 x 2,000 x K18.90 x 10%)	10,966
	25,895
Mineral royalty tax on other minerals	
Emeralds (K260,000,000 x 6%)	15,600
Aluminium (K180,000,000 x 5%)	9,000
Gold (K120,000,000 x 6%)	7,200
Total mineral royalty tax	57,695

(2) COMPUTATION OF CAPITAL ALLOWANCES

	K'000
Secondary school	
Wear and tear allowances	

(K15,000,000 x 20%)	3,000
Mine excavation equipment	
Indexed capital allowance	
(K3.0m x 20%) x [1 + (18.90 –18.00)/18.00]	630
Mineral exploration equipment	
Wear & tear allowance	
(K2m x 20%) x [1 + (18.90 -18-00)/18.00]	420
Process plant	
Wear & tear allowance	
(K35m x 20%)	7,000
	11,050

(3) COMPUTATION OF DISALLOWED INTEREST

	K
Taxable profit	114,503
Finance cost	320,000
Depreciation	48,000
Tax EBITDA	482,503
Finance cost	320,000
Allowable interest	
(30% x K482,503)	(144,751)
Disallowed interest	175,249

(4) LOSS RELIEF FOR THE TAX YEAR 2025

	K'000
Loss b/f translated	
(US$900,000 x K18.00)	16,200
Loss Relief for 2024	
[(1+(K18.90 – K18.00)/K18.00] x K16,200]	17,010
Loss Relief for 2024	17,010
Unrelieved loss c/f	0
Profit available for loss relief	
(50% x K289,752,000)	144,876

Therefore, the whole loss will be relieved as it is less than 50% of the taxable profit.

SOLUTION THREE

(a) (i) Tax implications on the grant of the options

On the grant of shares to an employee in a share option scheme that is not approved, the exercise price is compared with the open market value of the shares on the date the options are granted and an income tax charge will arise on the difference if the market price of the shares is higher than the exercise price.

In the case of Machelyn, the market value of the shares on the date the options were granted to him was K5, which was equal to the exercise price of K5 and therefore no income tax charge was assessed on her in the year the options were granted.

Tax implications of the exercise of the options

On the exercise of share options by an employee from a share option scheme that is not approved for tax purposes run by an employer, the price paid is compared with the open market value at that time, and if the price paid is less, the difference is charged to income tax.
In Machelyn's case on the exercise of the options, the difference between the market value of the shares and the price paid for the shares will be taxed as income on her, since the market price of each share of K6.50 on 1 July 2025, the date she exercised the options is higher than the exercise price of K5.00. The amount of income taxable on Machelyn on the exercise of the options will therefore be: (K6.50 – K5.00) x 200,000 = K300,000.

(ii) Tax implication of the sale of the shares

On the sale of shares acquired under a share option scheme that is not approved for tax purposes in an unlisted company, property transfer tax is payable on the realised value of the shares sold. The shares have a realised value for property transfer tax purposes that is equal to the higher of their nominal value and the open market value.

In Machelyn's case the realised value will be the open market value as the market price of each on the date of disposal is K7.00 which is higher than the nominal value of each share which is K0.50.

The amount of PTT arising will therefore be:

(20,000 shares) x K7.00 x 8% = K11,200

(b) Tax implications for Machelyn if the share option scheme was approved

Any gain arising to an individual on allotment and exercise of shares under an approved share option scheme is exempt from income tax. In the case of an exercise of options the gain or benefit arises when the market value per share at the time when the option is being exercised exceed the exercise price.

Therefore, in Machelyn's case the gain arising on exercise of the options of K300,000 computed in (a) (ii) above would have been exempt from income tax if the share option scheme was approved for tax purposes.

Additionally, transfer of shares under an approved share option scheme is exempt from property transfer tax. Therefore, Machelyn would not have been required to pay PTT on the sale of the 20,000 shares.

(c) MACHELYN

PERSONAL INCOME TAX COMPUTATION FOR THE TAX YEAR 2025

	K	K
Zambian Employment Income		
Salary		660,000
Motoring expenses (K3,500 x 12)		42,000
Income from share options		
(K6.50 – K5.00) x 200,000		300,000
		1,002,000
Income from foreign sources		
Dividends from Escovia		
(E$1,200 x 100/60) x K17.50	35,000	
Bond interest from Escovia		
(E$3,000 x 100/75) x K17.50	70,000	
		105,000
Taxable income		1,107,000
Income Tax		
On first K110,400		12,360
On excess (K1,107,000 – K110,400) x 37%		368,742
		381,102
Less tax already paid		
Income tax under PAYE		(219,111)
Less Double taxation Relief on:		
- Dividends from Escovia	11,941	
- Fixed deposit interest from Escovia	17,500	
		(29,441)
Final income tax payable		132,550

WORKINGS

(1) Total assessable income

	K
Income chargeable to income tax	1,107,000
Gross Zambian dividend (K15,300 x 100/85)	18,000
Total assessable income	1,125,000

(2) Total amount of Zambian tax charge

	K
Income Tax	381,102
Withholding tax on Zambian dividend (15% x K18,000)	2,700
Total Zambian tax charge	383,802

(1). Double taxation relief on the dividends from Escovia:

This will be the lower of:

(i) The foreign tax paid on the dividends:
K35,000 x 40% = K14,000; and

(ii) The Zambian Tax Charge attributed to the dividends computed as:

$$\left(\frac{K35{,}000}{K1{,}125{,}000}\right) x\ K383{,}802$$

= K11,941

DTR will therefore be K11,941 being the lower amount.

(2). Double taxation relief on the bond interest from foreign sources:

This will be the lower of:

(i) The foreign tax paid on the bond interest:

K70,000 x 25% = K17,500; and

(ii) The Zambian Tax Charge computed as:

$$\left(\frac{K70{,}000}{K1{,}125{,}000}\right) x\ K383{,}802$$

= K23,881.

DTR will therefore be K17,500 being the lower amount.

SOLUTION FOUR

PART A

(a) The following are tax implications

Option one

If the company acquires the building outright using a 12% loan note, the following are the taxation implications:

(1) The interest expense on loan will be an allowable deduction for as long as it will not exceed 30% of the tax earnings before interest, tax, depreciation and amortization (EBITDA).
(2) The company will be able to claim capital allowances on the building. The amount of capital allowances to be claimed by the company for the tax year 2025 will be K358,500.
(3) The company will be able to claim input VAT on the purchase cost of the building.

Option two

If the company acquires the building outright by issuing shares, the following are the taxation implications:

(1) The dividends will not be allowable.
(2) Issues costs will not be allowable
(3) The company will be able to claim capital allowances on the building. The amount of capital allowances to be claimed by the company for the tax year 2025 will be K358,500.
(4) The company will be able to claim input VAT on the purchase cost of the building.

Option three

If the building is acquired under an operating lease, the following are the taxation implications:

(1) The company will not be able to claim capital allowances on the building. This so because under an operating lease, the lessor (legal owner) claims capital allowances.
(2) The operating lease rentals, exclusive of VAT, will be an allowable deduction. The amount of lease rentals to be allowed will be: K406,000 x 25/29 = K350,000.
(3) The company will be able to claim input VAT on the lease rentals. i.e. K406,000 x 4/29 = K56,000.

Workings

Capital allowances on the factory building

Qualifying expenditure	K
Cost	1,910,000
Less:	
Cost of land	(200,000)
	1,710,000

K1,710,000 x 10% = K171,000

The administrative offices should be classified as commercial building because its cost is more than 10% of the qualifying expenditure.

Capital allowances

	K
Staff canteen	
Initial allowance: K210,000 x 10%	21,000
Investment allowance: K210,000 x 10%	21,000
Wear & tear: K210,000 x 5%	10,500
Factory building	
Initial allowance: K1,200,000 x 10%	120,000
Investment allowance: K1,200,000 x 10%	120,000
Wear & tear: K1,200,000 x 5%	60,000
Administration offices	
Wear & tear: K300,000 x 2%	6,000
Total capital allowances	358,500

PART B

(b) Taxation implications of financial investments

(i) Loan notes of Zambian companies

(1) Interest received by individuals from investments in loan notes is subjected to withholding tax at a rate of 15% which is the final tax.

(2) There is no property transfer tax on the transfer of loan notes because loan notes are not property and therefore fall outside the scope of property transfer tax.

(ii) Equity shares of Zambian companies listed on the Lusaka Securities Exchange

(1) Dividends received by individuals from companies listed on the Lusaka Securities Exchange are exempt from tax. This means that the withholding tax on these dividends is 0% which is the final tax.

(2) Transfer of shares listed on the Lusaka Securities Exchange is exempt from property transfer tax.

(iii) Government of the Republic of Zambia (GRZ) bonds

(1) Interest received by individuals from GRZ bonds is subjected to withholding tax at a rate of 15% which is the final tax.

(2) There is no property transfer tax chargeable on GRZ bonds because bonds are not property and fall outside the scope of property transfer tax.

SOLUTION FIVE

(a) Ethical threats and safeguard

(1) Familiarity threat.
This long association with Kitwe Ltd can create familiarity and self-interest threats. The firm may be too sympathetic to the interests of Kitwe Ltd or too accepting of their work which is clearly unprofessional. Professional accountants are required to exercise appropriate levels of skepticism when performing professional assignments.

It may be advisable to rotate senior personnel on the assignment and even consider discontinuing the relationship for ethical reasons.

(2) Astridah is a good friend of the person responsible for tax affairs of Kitwe Ltd.
This can also create familiarity and self-interest threats. The person responsible may want to impress Astridah in order to maintain the friendship. Independence and objectivity could be adversely affected. The responsible person will not be seen to be independent even if Astridah is not a director. It may be possible to exercise undue influence through others (indirectly).

The responsible person should declare this personal interest in the client and be replaced given the seriousness of the threats.

(3) Self-interest threat.
The question is silent on the amount of fees the firm is getting from Kitwe Ltd. It is possible that these could be high. This can definitely create a self-interest threat. The firm would not want to lose such a client. It may be involved in unprofessional conduct (e.g. tax evasion) just to maintain this client. The firm's professional judgement could be impaired significantly.

The firm must review the fees obtained from Kitwe Ltd, especially on a regular basis, and if high, the firm should consider restricting services offered to Kitwe Ltd.

(4) Advocacy threat.
An advocacy threat may arise if the firm was to represent Kitwe Ltd in a dispute with the Zambia Revenue Authority (ZRA). Kitwe Ltd would expect the firm to support it at all costs. This could impair objectivity of the firm and its reputation could be negatively affected.

The safeguard is that the firm must decline to represent Kitwe Ltd in the dispute.

(b) Provision of interest free loan
Astridah holds more than 5% of the ordinary shares of Kitwe Ltd (her holding is 8%) and is therefore an effective shareholder of the company.

The company will therefore be deemed to have made a loan to an effective shareholder amounting to K396,825 (K250,000 X 100/63).

The company will be required to pay tax equal to the difference between the amount of the grossed-up equivalent of the loan and the actual amount of the loan.

The amount of tax the company will be required to pay will be:

K250,000 X 37/63 = K146,825 (or K250,000 x 100/63 x 37%= K146,825).

(c) Rental income is subjected to rental income tax using the using graduated tax bands as follows:

	K
On First K12,000 X 0%	0
On next K788,000 X 4%	31,520
On balance above K800,000 (K920,000 – K800,000) X 16%	19,200
Total rental income tax	50,720

The rental income tax payable by the company will be K50,720

(d) Kitwe Ltd is exposed to penalties and interest due to late payment of tax for the fourth quarter.
The provisional income tax return was submitted on 31 March 2025 and the provisional taxes for all the quarters except the fourth quarter were paid on time.

The fourth installment of provisional income tax for the tax year 2025 was paid late. It was paid on 30 June 2026, when it should have been paid by 10 January 2026. It was therefore paid late by 5 months and 21 days.

A penalty of 5% of the tax due per month or part thereof will arise. The amount of penalty payable will be: 5% X K52,500 (W) X 6 = K15,750.

Additionally, interest on the overdue tax will arise. The amount of interest will be 2% above the BOZ policy rate per annum. The amount of interest will be: (9% + 2%) X K52,500 X 6/12 =K2,888.

Workings
Provisional tax for tax year 2025:
K700,000 X 30% = K210,000

Quarterly installment:
K210,000/4 quarters = K52,500

END OF SUGGESTED SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA3.5: ADVANCED MANAGEMENT ACCOUNTING

TUESDAY 10 JUNE 2025

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 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

Link Chemicals Ltd (LC Ltd) produces assembly spare parts and supplies them to car manufacturers. The assembly spare parts are X, Y and Z. The company has been operating for over twenty (20) years. A recent review by Salifyanji Management Consultants (SMC) shows that profitability is not growing at the expected rate. When SMC tried to analyse the results, the information was not readily available. Without knowing which parts of the business were profitable and which ones were not, it was difficult to know where growth was improving profitability and where it was making the situation worse. Another burning question they could not answer was how the growth in direct costs compared with the growth in overhead costs. Related to the direct costs vs overheads issue was the following extract from an article in the ZiCA Accountant Magazine which stated that:

> *"It is now fairly widely accepted that conventional cost accounting distorts management's view of business through unrepresentative overhead allocation and inappropriate product costing.*
> *This is because the traditional approach usually absorbs overhead costs across products and orders solely on the basis of the direct labour involved in their manufacture. And direct labour as a proportion of total manufacturing cost continues to fall, this leads to more and more distortion and misrepresentation of the impact of particular products on total overhead costs".*

SMC further noted that although LC Ltd makes a satisfactory return, the directors were concerned that some products were profitable whilst others were not. The results revealed that while operating costs had grown by 70%, sales and customer services, had grown by 4% and IT, accounting, management and administration costs had grown by 25%. This shows that they need an alternative costing system. LC Ltd has been operating an absorption costing system for its three product ranges above. However, in view of the results analysis above and the comment from the ZiCA Accountant Magazine extract, LC is considering the introduction of the activity based costing system (ABC). It is hoped that the ABC introduction will lead to all the products making profits.

The following information is provided by LC Ltd. Production volumes, direct costs and overall for production overheads for products X, Y and Z are shown below:

Product range	Production volume	Total machine operating wages	Total cost of components	Total variable production overheads
	Units ('000)	K'000	K'000	K'000
X	50	240	400	**?(to be derived)**
Y	200	8,000	6,800	**? to be derived**
Z	100	400	1,800	**? to be derived**
	350	**8,640**	**9,000**	**1,920**

The following financial and non- financial data is also relevant.

Note 1: Variable production overheads of K1, 920, 000 consists of supervision costs for machine operators and handling costs for components. 75% of variable production overheads relate to supervision costs and the remainder relates to the handling of components.

Note 2: Currently LC Ltd absorbs variable overhead costs into products units using overall company – wide percentages on direct machine operators wages costs and component material costs as the basis of absorption. That is, the proportion base is calculated by expressing the total component related overhead cost as a proportion of total direct component cost per product. Similarly, for labour related overheads, the proportion is calculated by expressing the total machine operators wages (direct wages) related overhead costs as a proportion of total machine operators wages costs to derive an overhead absorption rate per unit.

Note 3: Activity analysis has revealed that production overheads are driven by a number of ***processes*** for labour and by ***weight*** for components as shown below:

Product	Processes per unit	Weight per unit
X	5.5	4.5
Y	6.5	5.0
Z	0.5	0.5

Required:

(a) Calculate product costs per unit for products X and Z where variable overheads are absorbed into products units as follows:

(i) Using the current absorption basis. (4 marks)

(ii) Using the activity based costing (ABC) technique where cost drivers are estimated as in the activity analysis notes above. (8 marks)

The Sales Director for LC Ltd reveals that market prices for products X and Z are K17.50 per unit and K27.5 per unit, respectively. The Board of Directors has directed that the contribution earned by each product should be at least 15% of its selling price.

Required:

(b) Prepare a report regarding LC Ltd's production and sales strategy. The report should cover the following:

- An analysis and evaluation of the decision strategy which may be implemented by LC Ltd regarding the production and sale of products X and Z.
- Include relevant calculations, discussion and evaluation. Detailed workings should be in an appendix.
- Use product unit costs calculated in (a)(i) and (a)(ii) in addition to any other information provided in the question in your analysis.

(9 marks)

The management consultant, SMC, analysed LC Ltd's operations a month ago. He proposed that he be allowed to devise a target costing strategy for the company to be used alongside an absorption costing system based on labour hours. The Board has asked you, as Management Accountant, whether this will still be possible or desirable after the introduction of ABC.

Required:

(c) Write a memo to the board which :
- Explains target costing.
- Discusses whether LC Ltd can use target costing and ABC side by side for products X and Z to confirm SMC's advice/analysis.

(6 marks)

In reference to the scenario regarding the extract from the article in the ZiCA Accountant Magazine, answer the question below.

Required:

(d) Discuss the content of the extract and what approaches are being adopted by management accountants to overcome such criticism. (5 marks)

In the scenario above, the company lacked a management information system (MIS) to help it know which products were profitable and which ones were not and which areas to concentrate on. One recommendation by the SMC was for LC Ltd to invest in a "state of the art" Information Technology (IT) system which has the capability to collate the data necessary for budgeting in each of the activity areas which include *process areas* for labour and *weight areas* for components.

Required:

(e)

(i) Discuss the impact of recent IT developments on Management Accounting and on business performance. (5 marks)

(ii) Explain the problems that LC Ltd might experience in the successful implementation of an Activity Based Costing system using its recently acquired "state of the art" IT system. (3 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt any THREE (3) questions in this section.

QUESTION TWO

Tehillah Healthcare Limited (TH Ltd) is a limited liability company. It provides healthcare services in Zambia at affordable rates, aligning with its mission to deliver quality, reliable, affordable, and accessible healthcare. TH Ltd supports cooperatives and other community driven initiatives to promote public health services.

TH Ltd plans to expand its services by developing healthcare infrastructure in unserved areas. The company will construct twenty (20) health posts across selected districts in Zambia, focusing on regions with insufficient clinics and hospitals. These health posts will be leased out at fixed rates to private entities and cooperatives, allowing them to operate as private clinics that complement government healthcare provisions. Lease rates for public health posts will adhere to regulatory authority guidelines, while private lease rates will remain competitive and flexible.

TH Ltd will manage the construction process, hiring qualified contractors through a competitive bidding system to ensure cost effectiveness and quality. Specialized materials for the project will be sourced from trusted suppliers, with contingency plans in place to mitigate supply chain disruptions.

The company plans to engage part-time professionals from competitor companies, as well as freelancers, including civil engineers, architects, and building scientists. This approach ensures that access to experienced personnel while maintaining flexibility in labour costs.

TH Ltd will work closely with regulatory authorities to ensure that construction and leasing activities meet national healthcare standards and regulations. A company lawyer has been hired to oversee legal compliance, manage contracts, and mitigate risks associated with the expansion.

The healthcare infrastructure sector in Zambia is competitive, with multiple players operating for over thirty (30) years. Among them is Alpha Health Limited (AH Ltd), a market leader holding over 50% market share. Despite the competition, TH Ltd's unique strategy of focusing solely on infrastructure development and leasing provides an opportunity to address market gaps and serve underserved regions.

The construction of health posts will prioritize environmental sustainability by using eco-friendly materials and energy efficient designs. This approach supports TH Ltd's commitment to long term environmental and social responsibility.

Required:

(a) Evaluate whether TH Ltd can go ahead and enter this new market, using Porter's Five Forces model.

(15 marks)

(b) Advise TH Ltd on what strategy it can use to outperform its competitors.

(5 marks)

[Total: 20 Marks]

QUESTION THREE

XYZ Ltd, a medium-sized manufacturing company, has recently decided to implement a new performance management system (PMS) aimed at improving employee productivity, alignment with organizational goals, and overall performance. The new system includes features like regular performance appraisals, 360-degree feedback, continuous feedback mechanisms, and performance-based incentives.

The senior management team is concerned about how the new system will be received by employees and how to ensure smooth adoption. As a professional accountant and advisor, you have been asked to assist in advising management on the best approaches to managing people and change during the implementation of the PMS.

Required:

(a) Prepare a report for the senior management team that outlines:

(i) The key strategies that should be used to manage people and change when implementing a new performance management system.

(ii) The advantages and disadvantages of each strategy, and how these strategies can help in overcoming potential resistance to change.

(iii) A set of recommendations for how to effectively communicate the changes to the employees and ensure their engagement and buy-in throughout the implementation process.

(10 marks)

XYZ Ltd is facing challenges in tracking its operational and strategic performance. The company is growing rapidly, and senior management has identified the need to improve how they monitor key performance indicators (KPIs) across various departments. Additionally, they want to align their operational performance metrics with long-term strategic goals.

The company currently uses basic spreadsheets for performance tracking and decision-making but has no integrated IT systems in place. Senior management is unsure about which technology solutions would best support their operational and strategic performance management. They have asked for your expert advice on what IT and information systems could be implemented to:

1. Track and analyze operational performance across departments in real-time.
2. Align operational performance with strategic goals, allowing management to make informed decisions.
3. Improve data accuracy, streamline reporting, and ensure secure access to performance information across different management levels.
4. Support continuous improvement in operational efficiency.

Required:

(b) Prepare a detailed recommendation to management, considering the following factors:

(i) Cost-effectiveness and scalability of the solution.

(ii) Integration with existing systems and processes.

(iii) Security and data privacy concerns.

(10 marks)

[Total: 20 Marks]

QUESTION FOUR

Zindaba Plc (Z plc) is a large divisionalised company in Zambia. At the beginning of the year Z Plc appointed Mr. Zube as the manager of Division P. 85% of the output of Division P is exported to East Africa and the exports are denominated in USA dollars ($). Division P is performing well and making profits. In the current year, the value of the dollar fell. Consequently, the exports reported were lower in monetary terms. Although Mr. Zube adopted a hedging policy to mitigate the risk of a fall in the dollar value. The profit reported in the current year is lower than in the previous year.
Another division of Z plc is Division Q. Mrs. Grace Moyo was last year appointed to head this division. Division Q has been incurring losses for the past four years. During the year Mrs Moyo performed very well: she streamlined all the procedures, took various decisions to improve the performance of the division and motivated the personnel in the division to work for her division. As a result the division actually performed much better than it had done for the past four years. However, it could not make a profit.

Required:

(a) Discuss the need for separate measures in respect of managerial and divisional performance. Refer to Mr Zube and Mrs. Moyo in your discussion. (8 marks)

(b) Z Plc uses the Return On Capital Employed (ROCE), the Residual Income (RI) and the Economic Value Added (EVA) methods to appraise divisions P and Q managers. Z Plc considers the EVA to be superior to ROCE and RI.

The following details are taken from the income statements of divisions P and Q for the year ended 31 March 2025:

	Division P	Division Q
	K'000	K'000
Sales revenue	107,000	90,000
Operating costs	87,000	70,000
Capital invested	100,000	80,000

The following extra information is available:

(i) The minimum rate of return for both divisions is 12.5%.

(ii) The corporation tax rate is 35%.
(iii) Operating costs include interest payable on 10% debentures worth K50 million in Division P and interest payable on 11% loan worth K10 million in Division Q.

Assume that economic and accounting depreciation are the same.

Required:

(i) Calculate the ROCE, RI and EVA for divisions P and Q. (5 marks)

(ii) Comment on the performance of the divisions. (3 marks)

(iii) Discuss two (2) advantages and two (2) disadvantages of the EVA. (4 marks)

[Total: 20 Marks]

QUESTION FIVE

Zed Minerals Limited (ZM Ltd) is a listed, multinational mining company specializing in mineral extraction and processing. It operates in two key divisions: precious metals (e.g., gold, silver) and industrial minerals (e.g., copper, lithium). ZM Ltd has built a reputation for technological innovation and sustainability, granting its divisional managers significant autonomy in operational and strategic decisions.

However, during a recent shareholders' meeting, the executive management faced criticism for not listening to shareholders' concerns, which has led to complaints about unchecked autonomy.

In response, the chief executive officer (CEO) has decided to implement significant measures to address these concerns and strengthen corporate governance. Among the measures implemented include:

Stakeholder analysis

One of ZM Ltd's managers completed a stakeholder analysis before leaving on holiday but did not provide commentary of the analysis. The results are as follows:

Key stakeholders	Level of power	Level of interest
Shareholders	High - ability to vote out existing management.	Low – institutional investors have delegated management to the board and are only interested in financial returns.
Customers	High - as there are few major players in precious metal and industrial metal businesses, the loss of a customer would have a significant impact on ZM Ltd.	Medium - some of the metals supplied by ZM Ltd unique and specifically designed for the customer.

Suppliers	Low - the suppliers are generally bulk component producers and there is significant competition for ZM Ltd's business.	Medium - ZM Ltd is one of the large customers to many of the company's suppliers.
Employees	Low - although there is a group of key employees in product development whose skills must not be lost.	Medium - in a high skill industry employees are interested in the new opportunities which the market can present.
Suggested performance measures:	(i) Return on capital employed (ROCE) (ii) Economic value added (EVA) (iii) Revenue growth (iv) Average pay per employee (v) Net profit margin	

Balanced scorecard development:

A working group has been set up by the board to consider a framework for building and communicating strategy. The working group began by identifying the objectives from the board's medium term strategy:

(i) Create shareholder value by bringing commercially viable products to market.
(ii) Improve the efficiency of product development.
(iii) Increase shareholder value by innovation in the product approval process.

Required:

Prepare a report to the board of ZM Ltd to:

(a) Advise the board on how the implementation of a balanced scorecard delivers a range of performance measures aligned with the corporate strategy. (4 marks)

(b) Justify appropriate management approaches to each of the stakeholders and, based on this analysis, evaluate the appropriateness of the performance measures suggested. (16 marks)

[Total: 20 Marks]

END OF PAPER

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

SOLUTION ONE

(a) (i) Product Cost Per Unit Using Absorption Costing

	X	Z
	K	K
Materials (component)(K400/50/K1,800/100	8.0	18
Direct wages(operators wages)(K240÷50/K400÷100)	4.8	4.0
Prime cost	12.8	22
Variable overheads		
• MRO(W.1)K 0.0533x8/18=	0.43	0.96
• LRO(W.2):K0.1667x4.8/4=	0.80	0.67
Product per cost unit	14.03	23.63

(a)(ii) Product Cost Per Unit Using ABC

	X	Z
	K	K
Prime cost as above	12.8	22.0
Variable overheads		
• MRO(W.3):K0.3765 x 4.5/0.5	1.69	0.19
• LRO(W.4): K0.8862 X5.5/0.5	4.87	0.44
Product cost per unit	19.36	22.63

Workings

Absorption costing

W.1

Materials (components) related overhead(MRO)

- overhead = K1,920,000 x 25% = K480,000
- OAR = Total MRO/total material cost = K480,000/9,000,000 =K0.0533

W.2

Labour (machine operators wages) related overhead (LRO)

- Overhead = K1,920,000 x 75% = K1,440,000
- OAR = total LRO/total wages = K1,440,000/K8,640,000 =K0.1667

Activity Based Costing

W.3 COMPONENT HANDLING

Total number of weights

X – 4.5 per unit x 50,000 = 225,000
Y – 5.0 per unit x 200,000 = 1,000,000
Z- 0.5 per unit x 100,000 = 50,000
Total 1,275,000

Overhead cost per weight = K480,000/K1,275,000 = K0.3765

W.4 PROCESS RELATED OVERHEAD

Total number of processes

X – 5.5 X 500,000 = 275,000

Y- 6.5 X 200,000 = 1,300,000

Z – 0.5 X 100,000 = 50,000

Total processes 1,625,000

Overhead cost per process

K1,440,000/1,625,000 =K0.8862

(b)

REPORT

To: The Board Chairperson

From: Management accountant

Subject: Production and Sales Strategy for Products X and Z

Date: xxxxxxxxxxxxxxx

An analysis has been carried out of the variable cost of production of our product ranges using both our current method of calculation (absorption costing) and a more modern technique called activity based costing (ABC). The ABC approach is now widely considered to give a more accurate picture of the true costs of a product. *(1 mark)*

The figures are included in Appendix 1 (i.e part (a) of this answer) and may be summarised as follows for the two products under consideration.

	Product X			**Product Z**	
	ABC	Absorption Costing		ABC	Absorption Costing
	K/Unit	K/Unit		K/Unit	K
Selling price	17.50	17.50		27.50	27.50
Variable costs	(19.36)	(14.03)		(22.63)	(23.63)
Contribution	(1.86)	3.47		4.87	3.87
C/S ratio	(10.6%)	19.8%		17.7%	14.10%
Target C/S ratio	15%	15%		15%	15%
Decision	Reject	Accept		Accept	Reject

The board has stipulated that products should have a contribution/sales ratio of at least 15%. Using the criterion and our existing costing method (absorption costing) production of Product X would continue but production of Product Z would cease.

Using a 15% C/S ratio with ABC the opposite strategy should be adopted: production of Product X should cease.

Note that under absorption costing Product Z only narrowly fails to meet the required level of contribution, but under ABC the Product X fails by a significant amount. Even with absorption costing, production of Product X should not be ceased in the short term as long as it is making positive contribution to fixed costs unless the facilities used to produce it could be used more profitably in another way.

Given that ABC reflects the true causes of costs while absorption costing is merely an arbitrary method of allocating overheads, we should be guided by ABC information and act accordingly. Unless a way can be found to reduce the costs of Product X, production should cease.

There are, of course, other factors to be considered, such as a long term impact on business capabilities of shutting down production of a line, the reaction of customers, and the impact on staff.

Signed: Management Accountant.

(c)

Memo

To: The Board Chairperson

From: Management accountant

Subject: Target Costing and ABC

Date: 25 February, 2025

Target costing (TC) is a term that has been defined in a number of ways. The essence of the concept is that a product should cost less than the price that can be obtained for it in the market.

LC Ltd has all of the information necessary to apply TC. Market information suggests demand of 50,000 and 100,000 for products X and Z at market prices of K17.50 and K27.50, respectively. At the same time the company has set a target C/S ratio of 15%. ABC indicates that only Product Z meets this criterion. It follows that if TC is used, LC Ltd should monitor costs of Product Z carefully to ensure that it maintains its 15% C/S ratio. Where possible, it should seek cost savings to improve the ratio further.

Clearly I agree with the SMC advice. This is a desirable aim, whatever method of costing is in use. ABC is possibly more helpful if it is felt that overheads are the main area in which cost can be reduced. Activity analysis defines the factors that cause overheads to be incurred and so draws attention to the factors that need to be more closely controlled. This applies mainly to Product X, but there may also be scope for improvements to Product Z.

If handling overheads are to be reduced this may mean redesigning the product entirely, or simply re-organising production methods. Likewise, if the number of processes are to be reduced. It is more notable that the main item of expense for both products X and Z (especially the latter) is components. Therefore, there may be strong arguments for redesigning the products themselves to reduce direct costs as well as overheads.

Signed: Management Accountant.

(d)

Absorption costing is a three stage process of allocation, apportionment and absorption. Most cost systems use direct labour hours in the third stage. In today's production environment direct labour costs have fallen to about 7 % of total costs for many firms and it is argued that direct labour is no longer a suitable base for assigning overheads to products. Using direct labour encourages managers to focus on reducing direct labour costs when they represent only a small percentage of the total costs.

Approaches which are being adopted include:

(i) Changing from the direct labour overhead – recovery rate to recovery methods based on machine time. The justification for this is that overheads are caused by machine time rather than direct labour hours and cost.
(ii) Implementing activity- based costing systems that use many different cost drivers.

The benefits claimed for ABC include:

(i) Cost reduction
(ii) More accurate costs
(iii) Use of multiple cost drivers
(iv) Recognizes the complexity and diversity of products

(e)(i)

The impact of recent IT developments on management accounting and on business performance includes the following:

(i) IT developments, such as networks and databases, provide the opportunity for instant access to management accounting information.
(ii) It is possible to directly access and manipulate information from both internal and external sources.
(iii) Information is relatively cheap to collect, store and manipulate.
(iv) Many of the modern forms of management accounting have been developed in conjunction with IT systems, E.g. it may be difficult to run a meaningful ABC system without IT support.

Data mining techniques can be used to uncover previously unknown patterns and correlations and hence improve performance.

(e)(ii)

The problems that LC Ltd might experience in the successful implementation of an Activity Based Costing system using its recently acquired "state of the art" IT system include:

(i) a large amount of data will need to be collected initially on each activity. Therefore, the cost of buying, implementing and maintaining a system of activity based costing will be high.

(ii) incorrect definition of cost pools and cost drivers would result in inaccurate information being produced by the ABC system and hence incorrect decision by managers.

SOLUTION TWO

(a) Porter's Five Forces model is a framework for analyzing an organization's competitive environment. The collective strength of these forces determines the ultimate profit potential of an industry.

(i) Threat of new entrants:

(i) Threat of new entrants refers to the risk of new entry by potential competitors. In the marketplace some competitors are already operating their businesses. They are called existing competitors. Some other upcoming competitors are not now operating business in the industry but they can enter into the industry if they have the capability and desire to enter. They are potential competitors.

(ii) The healthcare infrastructure market has high entry barriers, including economies of scale, significant capital requirements, regulatory compliance, and expertise in construction and healthcare standards.

<u>Economies of scale</u>

THL is new in construction business and entering this market is likely to cost them handsomely due to an apparent economy of scale from the already established companies such as AHL that has been in the market for over 30 years with over 50% of market share.

<u>Government policy</u>

The government can limit or even foreclose entry to industries with such controls as license requirements and limits on access to raw materials. For THL this may not appear as a threat since all businesses are required to register with PACRA.

<u>Capital requirements</u>

There is a barrier to entry into this market caused by a huge amount of money that must be invested in purchasing specialized materials that shall be needed for the construction business. This appears to be an unrecoverable expenditure that must be incurred up front.

(i) THL's focus on underserved areas and unique leasing model gives it an edge. However, the presence of established players like Alpha Health Limited (AHL) poses a challenge.

(ii) Bargaining power of suppliers:

(i) A company has to procure various types of 'supplies' from the suppliers such as raw materials, components, parts and other materials necessary for producing a product. When dependency of the customers (buyer-firms) is high, the bargaining power of suppliers is enhanced.

(ii) From the scenario, suppliers of specialized materials hold significant bargaining power due to the niche nature of these resources.

(iii) THL's contingency plans can mitigate risks, but maintaining strong relationships with reliable suppliers will be crucial.

(iii) Bargaining power of buyers:

(i) Buyers of products may be ultimate consumers or even the intermediaries such as dealers, wholesalers and retailers. Buyer's bargaining power becomes high when suppliers have to depend on them for some reasons

(ii) Public health post lease rates are fixed by regulatory authorities, limiting buyer power in that segment.

(iii) Private lease rates offer flexibility, but buyers have alternative options from competitors, increasing their bargaining power.

(iv) Threat of Substitutes:

(i) A company needs to consider the competitive pressures from substitute products. The substitute products may come from either the same industry or from other industries.

(ii) Substitutes like mobile clinics, NGO-operated facilities, and traditional health services exist, but they may not fully address the gaps THL aims to fill in underserved areas.

(iii) THL's eco-friendly and fixed-rate clinics provide differentiation.

(v) Industry rivalry:

(i) Intensity of rivalry refers to the extent to which firms within an industry put pressure on one another and limit each other's profit potential.

(ii) Competitors are many in this industry and some of them have experience of over 30 years in construction business. Some competitors are government and private business companies.

(iii) THL's focus on infrastructure leasing rather than direct service provision may reduce direct rivalry but still requires differentiation to succeed.

In conclusion, THL's entry into the market is viable, but success will depend on strategic differentiation, operational efficiency, and robust stakeholder engagement.

(b) Strategic advice to outperform competitors

The following strategic considerations, if successfully implemented can help THL navigate its market entry and build a sustainable competitive advantage.

(i) Develop a differentiation strategy:
- Highlight the eco-friendly and sustainable design of health posts as a unique selling point.
- Emphasize partnerships with cooperatives and NGOs to strengthen community ties.

(ii) Optimize cost and efficiency:
- Use digital tools to streamline bidding, procurement, and internal communication processes.
- Focus on sourcing materials locally where possible to reduce costs and support the economy.

(iii) Build strategic partnerships:
- Collaborate with government and NGOs to secure additional funding or incentives.
- Form alliances with smaller competitors to enhance capacity and market reach.

(iv) Enhance marketing and branding:

- Launch awareness campaigns targeting underserved areas, emphasizing the accessibility and affordability of leased clinics.
- Build THL's reputation as a socially responsible healthcare provider through visible contributions to public health.

(v) Invest in long-term sustainability:

- Incorporate renewable energy solutions and sustainable materials in health post construction to align with global sustainability trends.
- Regularly review and adapt leasing rates and services to meet changing market demands while staying competitive.

SOLUTION THREE

(a)

Report

To : Senior Management

From : Consultant

Date : 25 May, 2025

Subject: Managing People, Resistance to Change and Recommendations

1.0 Introduction

This report sets out the key strategies to manage people, manage resistance to change, advantages and disadvantages of each strategy and, finally, proposes some recommendations on how to effectively communicate the changes to the employees.

2.0 Key Strategies for Managing People

2.1 Clear Communication: Management should ensure that all employees understand the purpose, benefits, and mechanics of the new Performance Management System (PMS). Transparent communication about why the system is being implemented, how it aligns with company goals and the role employees will play in the process is crucial.

2.2 Training and Support: Offering training sessions for managers and employees on how to use the new system will help build competence and confidence. Managers should also be trained on how to deliver constructive feedback and manage performance effectively.

2.3 Involvement of Key Stakeholders: Involving key employees, managers, and union representatives (if applicable) in the planning and design of the system can help ensure that the system meets the needs of all parties and minimize resistance.

2.4 Gradual Implementation (Pilot Phase): Instead of implementing the system across the entire organization at once, a pilot phase could be used with select teams or departments to identify potential challenges and address them before a full rollout.

2.5 Recognition and Incentives: To motivate employees, performance-based rewards, recognition programs, and incentives tied to the new PMS can be implemented. This approach encourages employees to embrace the new system.

3.0 Advantages and Disadvantages of Each Strategy

3.1 Communication

3.1.1 Advantages: Employees feel informed and involved, reducing uncertainty and confusion.

3.1.2 Disadvantages: If communication is not ongoing or consistent, employees may feel left out or skeptical about the process.

3.2 Training and Support

3.2.1 Advantages: This enhances employee capability and encourages the proper use of the system.

3.2.2 Disadvantages: There may be resource and time constraints in organizing and delivering the necessary training.

3.3 Involvement of Key Stakeholders

3.3.1 Advantages: Increases the likelihood of the system being accepted and utilized effectively.

3.3.2 Disadvantages: Time-consuming and may result in conflicts if different stakeholders have different priorities.

3.4 Gradual Implementation (Pilot Phase)

3.4.1 Advantages: Allows for adjustments based on feedback before the system is launched company-wide.

3.4.2 Disadvantages: Delays in full implementation and possible dissatisfaction among those not included in the pilot phase.

3.5 Recognition and Incentives:

3.5.1 Advantages: Encourages higher engagement and commitment.

3.5.2 Disadvantages: Some employees may feel the system is unfair if rewards are not distributed equitably.

4.0 Addressing Resistance to Change:

4.1 Acknowledge Concerns: Employees may resist change due to fear of the unknown or a perceived increase in workload. Management should listen to concerns, provide reassurances, and explain how the new system will benefit both the organization and employees.

4.1.1 Advantages: Helps reduce anxiety and improves trust in management.

4.1.2 Disadvantages: This can take time and effort, and if not addressed properly, it could lead to further resistance.

4.2 Highlighting Benefits: Emphasizing the personal and professional benefits of the new PMS, such as skill development, clearer career progression, and enhanced job satisfaction, can motivate employees to engage with the system positively.

4.2.1 Advantages: Makes the change more relatable and appealing to employees.

4.2.2 Disadvantages: If benefits are not visible, employees may remain skeptical.

5.0 Recommendations for Effective Communication and Employee Engagement:

5.1 Frequent Updates and Feedback Loops: Provide ongoing communication about the progress of the system's implementation, highlight early successes, and address any emerging challenges. Feedback from employees and managers should be actively sought to continuously improve the system.

This method can be done through emails, town hall meetings, surveys, or internal memos.

5.2 Leadership Role in Advocacy: Management and senior leaders should actively support and advocate for the new PMS, setting a positive example. Leaders should publicly demonstrate their commitment to the system by participating fully in it and promoting its benefits.

5.3 Create a Feedback Culture: Encourage employees to provide feedback on how the PMS is impacting their work. Regularly review feedback and make improvements as necessary to ensure that the system remains relevant and effective.

5.4 Incentivize Early Adoption: Recognize and reward those employees who embrace the new system early on, whether through formal awards, verbal recognition, or other incentives. This can help create momentum and encourage others to follow suit.

5.5 Customized Communication: Recognize that different employee groups may have different needs and concerns. Tailor the communication strategy to address the specific challenges and motivations of various departments, teams, or employee demographics.

Signed: Consultant

(b) To advise the company on an effective IT and information systems solution, I would recommend the following steps:

(1) Enterprise Resource Planning (ERP) System

(i) Reason: An ERP system (such as SAP, Oracle, or Microsoft Dynamics) integrates various business functions, including finance, HR, sales, procurement, and operations, into one unified platform. This ensures seamless data flow across departments and real-time tracking of operational performance.

(ii) Benefit: It enables the company to monitor key performance indicators (KPIs) at every level of the organization. The ERP system will also automate data collection, reporting, and analysis, reducing the risk of errors associated with spreadsheets.

(iii) Impact on Strategic Goals: By centralizing data, an ERP system can help link operational performance to the company's strategic objectives, providing the leadership with up-to-date reports that align with long-term planning.

(2) Business Intelligence (BI) Tools

(i) Reason: Implementing BI tools (e.g., Power BI, Tableau, or Qlik) would allow for advanced data visualization and analytics, transforming raw data into actionable insights.

(ii) Benefit: BI tools can help management easily monitor both operational and strategic performance by providing interactive dashboards, trend analysis, and predictive analytics.

(iii) Impact on Strategic Goals: With BI tools, management can identify areas for improvement, track progress against strategic goals, and make data-driven decisions. These insights help align the company's operations with its strategic vision.

(3) Performance Management Software

Reason: Software such as ClearPoint, AchieveIt, or Kinaxis can be tailored specifically to track KPIs and ensure alignment with strategic objectives.

- Benefit: These tools can track specific metrics related to operational efficiency and effectiveness, and integrate with the company's ERP and BI tools for a comprehensive performance management solution.
- Impact on Strategic Goals: They ensure that departmental and team goals are in alignment with the company's overall strategy, fostering a culture of performance excellence and continuous improvement.

(4) Cloud Computing Infrastructure

- Reason: Implementing cloud solutions (such as AWS, Microsoft Azure, or Google Cloud) will provide scalability, security, and ease of access to performance data.
- Benefit: Cloud-based systems allow real-time access to performance metrics from any location, making it easier for both top management and departmental leaders to make timely, informed decisions.
- Impact on Strategic Goals: Cloud infrastructure supports growth by enabling the company to scale IT resources in line with its expansion and strategic initiatives.

(5) Security and Data Privacy Measures

(c) Reason: With sensitive performance data being centralized, it is essential to implement strong cybersecurity measures to protect company data.

(d) Benefit: Utilize encryption, multi-factor authentication, and secure cloud storage to ensure data integrity and security. Compliance with industry standards will also be crucial.

(e) Impact on Strategic Goals: Security measures reduce the risk of data breaches, ensuring management can trust the information they are making decisions on, thereby contributing to long-term stability and success.

(6) Training and Change Management

Reason: Successful implementation of these systems depends on the company's ability to adapt and utilize new technologies effectively.

- Benefit: Providing training for staff at all levels will ensure smooth adoption and prevent resistance to change. Additionally, an ongoing change management strategy should be in place to adapt to future technology updates.

- Impact on Strategic Goals: Skilled users will improve the overall effectiveness of the new systems, ensuring better decision-making and performance management across the organization.

SOLUTION FOUR

(a) Evaluating managerial performance means evaluating the performance of the individual manager whereas evaluating divisional performance means evaluating the performance of the divisions of the organisation.
It is quite difficult to segregate the performance of the manager from the performance of the division. The performance of the manager is evaluated by the results of the division. The responsibilities accepted by the manager during the period and the way in which he/she handled these responsibilities are the basis of appraising the manager.

Measuring divisional performance is no doubt important since it measures the leadership traits of a manager such as his ability to motivate the personnel in the division, to work in a group and making various decisions. However, it should not be the sole criteria of evaluating a manager.

The performance of the various divisions will be different since they operate in different environments and face different risks. Therefore, just because a division is not performing well in comparison with other divisions, one cannot say the manager of that division is not performing well. It is, therefore, problematic to evaluate the performance of managers on the basis of the performance of the division.
Here along with divisional performance, it is necessary to evaluate Zube's performance on other grounds such as whether correct action, i.e., hedging, was taken at the appropriate time, whether or not production units have increased and whether or not employee turnover has decreased.
It is difficult to assess the performance of managers on the basis of the performance of the division when two or more divisions are operating with different work-cultures, in different geographical locations with different manpower quality and quantity, investment, machinery, etc. and therefore cannot be compared. In this case the performance of managers should not be evaluated on the basis of divisional performance.

If it is assumed that all the divisions in an organisation are operating in the same environment, with the same work-culture, investment and all other resources, the performance of these divisions will not differ. This difference in performance is due to managerial traits. The way the manager motives the personnel working with him, the proactiveness of the manager, the way in which he deals with a particular situation, the manager's approach towards the goals of the division as well as towards the organizational objectives all make a difference. The ability of the manager should be taken into consideration while evaluating his/her performance.

Generally, the worst division is given the best manager. In this case, even if the manager performs very well, it is unlikely that the division will perform better than the other divisions. This does not mean that the manager is not performing well.
In such a case, if divisional performance were the sole criterion, it would be said that Grace had not performed well because her division could not make profit and in comparison to the other divisions, the division has performed very poorly. The truth is that Grace has revived the division, which was in a terrible condition. However, for Grace's performance to be evaluated correctly, divisional performance will not be sufficient.

It has already been stated that divisional performance should be measured by considering the items that can be traced to the division. Likewise, when evaluating the performance of a manager, only those items that are within control of the manager should be considered.

(b)(i)

	Division P K'000	Division Q K'000
• ROI=Profit after tax/total assets x 100% 13/100;13/80	13%	16.25%
• RI = Net operating profit – charge on investment [K13m – 12.5%xK100m/K13m-12.5%xK80m]	K500	K3,000
• EVA = NOPAT (W.2) – Charge on investment		
[K16.25m – 12.5%xK100m]	K3,750	K3,715
[K13.715m – 12.5%xK80m]		

W.1Net Operating Profit

Income Statement

Details	Division P K'000	Division Q K'000
Revenue	107,000	90,000
Less: operating expenses(without interest)	(82,000)	(68,900)
EBIT	25,000	21,100
Less: interest on debentures(10%xK50m/11%xK10m)	(5,000)	(1,100)
	20,000	20,000
Less: taxation@35%	(7,000)	(7,000)
Net operating profit	13,000	13,000

W.2

Adjusted Operating Profit

Details	Division P K'000	Division Q K'000
Revenue	107,000	90,000
Less: operating expenses	(82,000)	(68,900)
EBT	25,000	21,100
Less: taxation@35%	(8,750)	(7,385)
Net Operating Profit After Tax(NOPAT)	16,250	13,715

(b)(ii) Comment

(i) According to ROI, both division returns are above the minimum target of 12.5% and, therefore, profitable. However, Division Q is more profitable.

(ii) According to RI, both divisions are profitable because their RI's are positive. However, Division Q is performing better because its RI is larger than Division P's.

(iii) According to EVA, Division P is performing marginally better than Division Q.

(b)(iii)

Advantages of EVA

(i) EVA is a true indicator of the actual wealth created for the shareholders by the company. This is because this method calculates the value of an organisation after considering a charge for the use of capital made by that organisation. Therefore, it is a better measure of divisional performance.
(ii) Since it does not take figures directly from the accounting information but instead makes certain adjustments to the calculation to make it more justifiable, it is a good measure for performance evaluation.
(iii) The decision taken is based on the cash flows and therefore there is a lower possibility of the decision being affected by the accounting policies.
(iv) It is simple to understand and therefore widely used.
(v) It is widely used to evaluate the performance of managers and divisions.

Disadvantages of EVA

(i) It is complex to calculate. This is because it does not take the figures of profit and cost of capital directly from the accounting information, but instead makes certain adjustments to these figures.
(ii) Since the decision taken is based on historical information, it does not consider the future flow
(iii) EVA uses Capital Asset Pricing Model CAPM) to estimate the weighted average cost of capital, which itself is based upon various assumptions which may not hold true in reality.
(iv) EVA is not good for comparison since it does not consider the size of the organisation /division.
(v) EVA is a calculation of historic value addition and does not take into consideration the future flows and other estimates. Therefore EVA cannot be used to make decisions about the future.

SOLUTION FIVE

(a) The balanced scorecard is a tool to translate the overall vision of a company into objectives and performance metrics. It aims to ensure that the goals of the company flow from the strategy and that the performance measures on the scorecard are those that will serve the long-term interests of the business.

This approach will usually broaden the range of performance measures as it introduces four key perspectives: financial, customer, internal business process and learning and growth. Most businesses focus on the financial perspective with measures suited to the shareholders' interests. These measures also tend to concentrate on the immediate performance of the business in the last financial period and so can be accused of being short term. The scorecard broadens the range of measures by including those that view the business from the perspective of satisfying the customer both in terms of their needs and the ways in which the business can go about satisfying them (internal processes). The final area is focused on the sustainability of the company and its vision into the long term. Also, the use of these perspectives encourages companies to use non-financial measures as well as financial ones, for example, measures of quality in the customer perspective and measures of innovation in the learning and growth perspective.

The coherence of the scorecard to the vision of the company derives from the implementation process which involves first making the company's vision or strategy explicit, for example by strategy mapping. Then, by viewing the company through the four perspectives, performance measures are chosen that will relate to the achievement of the goals. An important feature of the method is that these methods should aid the clear communication of the vision to the staff. It is important that in broadening the perspectives of performance measurement, the scorecard does not overwhelm with numbers. Therefore, the measures should be limited in number and clearly prioritized.

(b) Stakeholder analysis

The matrix suggests different management approaches are appropriate for each group of stakeholders, depending on their likelihood of engagement in decision-making and their ability to influence that decision-making.

Shareholders have considerable power but do not wish active involvement in decision-making (this is what they pay the management to handle). Therefore, they must be kept satisfied by ensuring their financial targets are met.

Employees have little power generally and so need to be kept informed. However, there is a sub-group of key employees with skills who the company must retain and this sub-group should be kept satisfied by the provision of opportunity to develop their skills through training and work on new technologies.

Customers are key players given the importance of our components to their business and the lost revenue if one were to drop us as a supplier. Therefore, they should be managed closely by having staff dedicated to liaising with them and involving them in product development. This type of close cooperation is likely to be necessary in high-technology industries such as ours.

Suppliers have little power and ZML should be in a position of strength in negotiation over the price and quality of their goods. They should require minimal effort and they would be expected to be doing the work to meet our needs as a major customer. However, suppliers are a common source of innovation, so keeping them informed of developments would be sensible.

Evaluation of suggested performance indicators

Performance measures should be focused on the influential stakeholders identified above.

It is appropriate that most of the indicators are directed towards the key players identified above. Return on capital employed, economic value added, revenue growth and net profit margin are all suitable measures for the shareholders as these measure financial returns across the organization - its efficiency in deploying capital, its ability to grow sales and its efficiency in turning sales into returns for shareholders.

There are no indicators directed at customers who are key players. This is a major omission in the list of indicators suggested.

It would be helpful to have indicators covering the price/quality mix of ZML's products and their innovative nature in such high-technology industry sectors. Also, there are no external measures of competitive advantage given in the list of indicators.

Average pay per employee is a poor indicator as this does not focus on the sub-group of key employees. It is appropriate to have an indicator for this group and it would be their average pay (possibly as a percentage of an industry benchmark) which would be valuable.

Suppliers do not have significant power or importance to ZML, being easily interchangeable. Therefore, it is appropriate that there is no indicator directed at them

END OF SUGGESTED SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA3.6: ADVANCED FINANCIAL MANAGEMENT

FRIDAY 13 JUNE 2025

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

KOLE Plc is the world's largest beverage supplier based in the United States of America, accounting for over 3% of all drinks consumed globally every day. KOLE Plc produces a variety of drinks which are sold through various outlets globally. The company started with just one product in 1886 and has grown to include more than 3,800 brands across the globe.

KOLE Plc has witnessed a fall in the prices of its drinks and, hedge the price that it receives from the drinks it produces. The company uses futures for this purpose. However, when it came to the sale of drinks, it was discovered that the increased transportation costs (caused by a sharp rise in oil prices) reduced the price the company received from the drinks, even when the amount of drinks and delivery location have remained unchanged from the contract agreement.

Recently, KOLE Plc recruited a new Chief Executive Officer who was tasked by the board to diversify the business operations in order to reduce the risk exposure. The company is considering diversifying into the hospitality business in a foreign African country, and Zambia was identified as the most suitable country. This is against the background that the country has been recording increasing highest numbers of tourist's visits and, the peaceful political environment since its independence in 1964. The project will involve setting up a chain of hotels in tourist places across the country. The tourist places identified include Livingstone town, Kasaba Bay, Lower Zambezi National Park, South Luangwa National Park and Siavonga. The project investment would require immediate capital expenditure of $20 million and in addition, $5 million of working capital which would be recovered at the end of the project's four-year life. After four (4) years, the project would require significant investment and it will have no scrap value. The project team estimates that annual revenue of K300 million would be generated for two (2) years by the project and then drop to K260 million for the remaining period. The annual operating costs are expected to be K55 million. Capital allowances are available on a straight-line basis on the capital expenditure. The annual corporate tax rate in Zambia is 25% payable at the end of each year.

The Chief Financial Officer proposed to finance the project with a $15 million four (4) year loan at 12% from the USA financial market and the remainder with retained earnings. Issue costs on the loan will be 3% and are tax deductible. The hospitality business in the USA has an equity beta of 1.92 and an average debt to equity gearing ratio of 1:3.

The current interest on government bonds in the USA is 7.1% and the excess market return is 7.09%. Corporate tax in the USA is at 30% payable at the end of the year in which the tax liability arises. There is an existing double taxation agreement between the two (2) countries, USA and Zambia where KOLE Plc will not have to pay any USA tax on the proposed investment. The company is expected to have a significant USA tax liability from other operations for the foreseeable future.

The current ZMW/$ spot exchange rate is 21.15 – 21.89. The average expected annual inflation rate in the next four (4) years for USA and Zambia is 4% and 8% respectively.

Assume debt is risk free.

Required:

As a financial consultant, write a report to the KOLE Plc board addressing the following:

(a) Explain the meaning of basis risk in the futures market and assess the reason the revenue from the sale of drinks dropped despite hedging the prices of drinks by KOLE Plc.
(10 marks)

(b) Evaluate the proposed investment in the hospitality business using the Adjusted Present Value technique and, advise the management of KOLE Plc on the investment project's financial viability. (26 marks)

Note: there are four (4) professional marks available for the report format and coherence.

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt any THREE (3) questions

QUESTION TWO

KAKA Ltd and KATA Ltd. are two companies in the printing industry. The company's capital structures are summarized below:

KAKA Ltd.	**K000**
Ordinary shares (K50 per value)	40,000
Share premium account	90,000
Profit and loss account	73,000
Shareholders' funds	203,000

KAKA Ltd shares are trading at K140

KATA Ltd.	**K000**
Ordinary shares (K100 per value)	50,000
Share premium account	16,000
Profit and loss account	88,000
Shareholders' funds	154,000
12% debenture (newly issued)	50,000
	204,000

KATA's ordinary shares are trading at K170 and debentures at K100. Annual earnings before interest and tax for each company is K50 million.

Corporate tax is at the rate of 30%.

Required:

(a) If you owned 4% of the ordinary shares of KATA Ltd and you agreed with the arguments of Modigliani and Miller, explain the action you would take to improve your financial position.

(5 marks)

(b) Estimate how much your financial position is expected to improve. Personal taxes may be ignored and assumptions made by Modigliani and Miller may be used. (7 marks)

(c) If KAKA Ltd borrowed K40 million, analyse the effect this would have on the company's cost of capital according to Modigliani and Miller. Comment on the implications of the company's choice of capital structure. (8 marks)

[Total: 20 Marks]

QUESTION THREE

Molly Plc has offered to acquire the intangible assets of Pradi Technology for K25.5 million. This is because Pradi Technology is undergoing a demerger process. The following financial information relates to Pradi Technology over the past three years:

Year	**1**	**2**	**3**
	K'm	K'm	K'm
Pre-tax earnings	45	49	52
Tangible assets	160	167	171

The government bonds are 7.5% and equity beta for Pradi Technology is 1.11. The pre-tax cost of debt is 12%. The expected market return by the investors is 27%. The gearing ratio for Pradi Technology as measured by the debt to equity is 40%. The current return on assets ratio for the industry as a whole is 25%. Pradi Technology pays tax at an average rate of 20% per year.

(a) Evaluate whether Pradi Technology should accept the offer made by Molly Plc or not using the Calculated Intangible Value (CIV) method. (12 marks)

(b) Discuss the merits and demerits of a demerger by Pradi Technology. (8 marks)

[Total: 20 Marks]

QUESTION FOUR

A country is experiencing debt crisis such that the interest rate is anticipated to increase by 3% per year. This economic situation has prompted the treasury function of KLM International to consider a strategy to mitigate interest rate risk. Some financial analysts believe the interest rate will not rise significantly. However, the treasury department believes that interest rates are more likely to rise than to fall, and does not want interest payments during the six (6) months period to increase. The company plan to borrow £20 million in three months' time for a period of six (6) months and the following information is available:

Base rate	8% per year
Borrowing rate	Base rate + 1.75%
Investing rate	Base rate + 1.2%

The treasury department plan to hedge the interest rate risk using the futures contract on London International Financial Futures and Options Exchange (LIFFE).

Futures: LIFFE £500,000 three (3) month sterling interest rate (points of 100%)

December	92.76
March	92.46
June	92.10

Assume today is 31 December.

Required:

(a) Illustrate the results of futures hedges if, by 1 March interest rates rise by 3% and futures prices move by 2.7%. (13 marks)

(b) Explain the ways in which a country may resolve both the short and long term debt crisis. (7 marks)

[Total: 20 Marks]

QUESTION FIVE

(a) Globalization has resulted in several organizations engaging in corporate alliances and the establishment of several trading blocks. The advent of e-commerce has enabled companies to greatly expand their markets. Multinational companies are enterprises which own or control subsidiaries or service or production facilities, in countries outside that in which they are based. The empirical evidence on the growth of multinational companies shows that companies become multinationals in a gradual way. The first companies expand their operations into overseas markets by exporting or licensing. They can also expand their operations into overseas markets through either organic growth or acquisitions.

Required:

Explain five (5) strategic reasons multinationals engage in foreign direct investment.

(10 marks)

(b) During the COVID 19 pandemic many companies retrenched their workers while yet others closed their business operations. As a consequence people started their own small enterprises.

As a consultant for small and medium size firms, write a brief report, explaining the various ways in which small and medium size enterprises can raise capital for investment.

(5 marks)

(c) Agency problems can be resolved by proper corporate governance. Corporate governance lays emphasis on shareholders rights and enhancement of shareholder value.

Required:

Discuss the benefits of good corporate governance to shareholders. (5 marks)

[Total: 20 Marks]

END OF PAPER

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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

$$s_p = \sqrt{w_a^2 s_a^2 + w_b^2 s_b^2 + 2 w_a w_b r_{ab} s_a s_b}$$

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 SOLUTIONS

SOLUTION ONE

(a) **REPORT**

In futures markets, the spread between a futures price and the underlying spot price is known as the futures basis (b) and is defined as the difference between the spot price and the futures price. As expiry approaches the price of futures contract moves toward the price of the underlying instrument and on expiry date, they should be the same.

If the asset to be hedged is the same as the one underlying the futures, then the basis on expiration is equal to zero. Basis risk is the risk that the price of a future will vary from the price of the underlying cash instrument as expiry approaches, creating an imperfect hedge. This can occur when futures contracts are used for hedging and the futures contract is not written on the underlying that is being hedged.

Basis risk may also occur if a futures contract whose maturity is not the same as the time horizon of the hedger is used. For example, if you expect a payment in three months and you want to look into a specific interest rate now, the appropriate futures contract would be a three-month contract. A six-month contract will expose the investor to basis risk since after three months the futures price and the spot price will not be the same.

In this case KOLE Plc's basis risk resulted not from an unexpected change in the price of drinks, but from an increase in transportation costs. If the company had recognised the potential effects that changes in oil prices might have on its drinks prices, it could have hedged against oil price movements too. The key to managing basis risk is to take all factors that may affect your end position into account and match your hedging instruments to as many of these factors as you can.

(b)

Ba=Be x Ve/Ve+Vd (1-t)

Ba = 1.92 x 3/3+1(1-0.25)

Ba = 1.536

Ungeared Cost of equity = 7.1% + 1.536 (7.09%) = 18%

(b) Financial Evaluation Using the APV

Year	0	1	2	3	4
	K'm	K'm	K'm	K'm	K'm
Revenue	-	300.00	300.00	260.00	260.00
Operating Costs	-	-55.00	-55.00	-55.00	-55.00
Taxable Cashflow	-	245.00	245.00	205.00	205.00
Tax@25%	-	- 61.25	- 61.25	- 51.25	- 51.25
Tax Relief	-	26.44	26.44	26.44	26.44
Net Cashflow	-	210.19	210.19	180.19	180.19
Exchange rate	-	22.73	23.61	24.51	25.46
Cashflow ($'m)	-	9.25	8.90	7.35	7.08
Investment cost ($'m)	- 20.00	-	-	-	-
Working capital($'m)	- 5.00	-	-	-	5.00
Net Cashflow($'m)	- 25.00	9.25	8.90	7.35	12.08
Discount@18%	1.000	0.847	0.718	0.609	0.516
Present Values	- 25.00	7.83	6.39	4.48	6.23

Base Case NPV - 0.07

Comment: Based on the base case NPV, the project is not financially viable because it givens a negative NPV.

Adjusted Present Value:

Base Case NPV - 0.07

Present Value of Tax Shield		1.45
Present Value of Issue Costs	-	0.32
Adjusted Present Value		1.07

Therefore accept project and finance it in the manner indicated.

	$m	rate	K'm
Capital expenditure	20.00	21.15	423.00
Capital allowances	105.75		
Tax relief@25%	26.44		

Exchange rate		
Spot		21.89
Year 1	21.89x(1.08/1.04)	22.73
Year 2	22.73x(1.08/1.04)	23.61
Year 3	23.61x(1.08/1.04)	24.51
Year 4	24.51x(1.08/1.04)	25.46

Present Value of Tax Shield :	
Annual tax relief on interest = $15m x 0.12 x 0.3 = $0.54m	0.54
Present Value of tax relief = $0.54 x 2.690 = $1.4526m	1.4526
Present value of issue costs = $15m x 0.03 x (1-0.3)=	
$0.315m	0.315

SOLUTION TWO

(a)

Modigliani and Millers would argue that the total value of the companies is independent of the capital structure except to the extent of the tax advantage enjoyed by debt. This given by the value of debt X tax rate.

The value of the two companies are:

	K000
KAKA Limited:	
800,000 ordinary shares @140	112,000
KATA Limited	
500,000 ordinary shares @170	85,000
Debt	50,000
	135,000

Theoretically the value of KATA Ltd. should exceed that of KAKA Ltd by value of debt X tax rate.

500,000,000 x 30% = 15,000,000

The value of KATA Ltd exceeds that of KAKA Ltd by K23,000,000. KATA Ltd is therefore over valued as compared to KAKA Ltd. the investor in KAKA Ltd can improve his financial position by arbitrage. This will be achieved by:

Selling the holding in KAKA Ltd.

Borrowing initial personal gearing which is the same as the gearing in the capital structure of KATA Limited and then investing the proceeds in the shares of KAKA Limited.

(b) Income attributable to shareholders in the companies.

KAKA Limited	K000
EBIT	50,000
Less interest EBT	-
	50,000

Less tax @ 30%	(15,000)
Earnings to ordinary shareholders = dividends	35,000

KATA Limited	K000
EBIT	50,000
Less Debenture interest (12% X 50 m)	(6,000)
EBT	44,000
Less tax @30%	(13,200)
Earnings to shareholders = dividends	30,800

The investor in KATA Limited is currently receiving 4% of that firm's income i.e. 4% x 30,800,000=1,232,000.

He should sell the shares in KATA Limited realizing 85,000,000 x 0.04 = 3,400,000.

He should borrow K1,400,000 (4% x 50 m) (1 -0.30) to duplicate the gearing of KATA Limited and then invest the combined total of 4.8 m (3.4 m + 1.4 m) in KAKA Ltd.

		K000
4.8 m /112 x 35,000	=	1,500
Less interest on borrowing at 12% x 2 m	=	240
		1,260

Which is 1,260,000 – 1,232,000 = K28 ,000 greater than before.

(c) If KAKA ltd borrows 40,000,00; Modigliani and Miller would indicate that its values will rise by;

Value of debt x tax rate

40,000,000 x 30% = 12,000,000

Assuming that the debt replaces equity the value of KAKA Ltd: 112 + 12 = 124 million of which 40 million is debt.

Therefore equity = 124 m – 40 m = 84 m

Gross earnings as before interest	50,000,000

Less interest on debt 40 m x 0.12	4,800,000
	45,200,000
Less tax @30%	(13,560,000)
	31,640,000

Cost of equity of KAKA before debt = 35 m/112 m x 100 = 31.25%

Cost of equity after debt: 31,640/84,000 x 100 = 37.66%

MV of equity = 84 m and cost of equity = 37.67%

MV of debt = 40 m and cost of debt = 12% (1-0.30) = 8.4%

WCC = [37.67% X 84/124] + [8.4% X 40/124] = 28.23%

The weighted cost of capital is 28.23% which has dropped from 31.25%.

Gearing reduces WACC up to a point where threat of bankruptcy overweighs the tax shield advantages.

SOLUTION THREE

(a) Financial Evaluation

Cost of Capital:

Cost of equity = 7.5% + 1.11 (20% - 7.5%) = 21.375%

Cost of debt = 12% x (1 – 0.2) = 9.6%

WACC = (21.38% x 0.6) + (9.6% x 0.4) = 16.67%

Calculated intangible values:

Average pre-tax earnings = $\frac{\text{K45m+K49m+K52m}}{3}$ = K48.67m

Average Tangible Assets = $\frac{\text{K160m+K167m+K171m}}{3}$ = K166m

Return on Assets = $\frac{\text{K48.67m}}{\text{K166m}}$ x 100%= 29.32%

Excess return = K48.67m – (0.25 × K166m) = K 7.17million

After tax return = K7.17m (1-0.20) = K5.736m

NPV of premium= $\frac{\text{K5.736m}}{0.1667}$ = K 34.41million

Pradi Technology should not accept the offer because it is below the CIV.

(b) Merits and Demerits of Demergers

(i) Merit of demergers

The main advantage of a demerger is its greater operational efficiency and the greater opportunity to realise value. A two-division company with one loss making division and one profit making, fast growing division may be better off by splitting the two divisions. The profitable division may acquire a valuation well in excess of its contribution to the merged company.

(ii) Demerits of demergers

(1) Economies of scale may be lost, where the demerged parts of the business had operations in common to which economies of scale applied.
(2) The smaller companies which result from the demerger will have lower turnover, profits and status than the group before the demerger.
(3) There may be higher overhead costs as a percentage of turnover, resulting from (2).
(4) The ability to raise extra finance, especially debt finance, to support new investments and expansion may be reduced.

(5) Vulnerability to takeover may be increased. The impact on a firm's risk maybe significant when a substantial part of the company is spun off. The result maybe a loss in shareholder value if a relatively low beta element is unbundled.

SOLUTION FOUR

(a)

The treasury department believes that interest rates are more likely to increase than to decrease, and any hedging strategy will be based upon this assumption.

Current expectations if no hedging is done:

Interest payments on the loan: £20m x (8% + 1.75%) x 6/12 = £975,000

Using march futures hedges.

(i) If interest rates rise

With an expected loan of £20m – using March contracts.

As a six-month hedge is required the number of contracts sold will be:

$$\frac{£20m}{£500,000} \times \frac{3months}{3months} = 40 \text{ contracts}$$

The tick value is $0.0001 \times £500,000 \times \frac{3}{12} = £12.50$

Cash market

Current cost = £975,000

With 3% increase =£20m x 12.75% x 6/12 = £1,275,000

Extra cash market cost = £300,000 (K1, 275,000 – K975, 000)

Futures market

Dec 1: Sell 40 three-month sterling futures at 92.46

After interest rate increase:

Buy 40 three-month sterling futures at (92.46 – 2.7) = 89.76

Futures gain: 40 x 270* x £12.50 = £ 135,000

*(100 x 2.70) = 270 ticks

Net additional cost after hedging = £ 165,000 (K300,000 –K135,000)

If KLM Plc expects basis risk to exist (i.e., the futures price moves by a different amount to the cash market interest rates), the number of contracts could be modified to reflect such risk:

i.e.

$$40 \times \frac{3\%}{2.7\%} = 44.4 \text{ contracts}$$

then 44.4 x 270 x £12.50 = £ 149,850.

(b)

However, basis risk is difficult to predict.

Resolving the National Debt Crisis

Various approaches may be undertaken in attempts to overcome debt crisis problems. Where the situation has arisen due to a sudden (and hopefully temporary) fall in commodity prices, one solution may be for the country to take on additional short-term debt to cover the temporary shortfall.

Where the debt crisis is of a longer term nature, approaches include the following.

(i) The debt may be restructured and/or rescheduled in order to allow the government a longer time to repay the loan.

(ii) Restructuring is often linked to a package of economic reforms which are aimed at improving the balance of trade and stimulating growth. Some countries may initiate such reforms themselves as a way out of their problem – in other cases; reforms are linked to the rescheduling package and are approved and monitored by the IMF.

(iii) Some of the debt may be written off by the lending governments and banks thereby reducing the interest burden and enhancing the prospects of eventual payment.

(iv) Some of the debt may be converted to equity, giving foreign companies a stake in local industries and reducing the level of interest payments.

SOLUTION FIVE

(a) The main strategic reasons for engaging in foreign direct investment include:

(i) Market seeking: market seeking firm engages in FDI either to meet local demand or as a way of exporting to markets other than the home market. Examples of this are the manufacturing operations of US and Japanese car producers in Europe. Some FDI is undertaken to provide a sales and market organization in the overseas economy for the exporter's goods.

(ii) Raw material seeking: Firms in industries such oil, mining, plantation and forestry will extract raw materials in places where they can be found, whether for export or for further processing and sales in the host country.

(iii) Production efficiency seeking: the labour- intensive manufacture of electronic components like in Taiwan, Malaysia and Mexico is an example of locating production where one or more factors of production are cheaper relative to their productivity.

(iv) Knowledge seeking: Knowledge seeking firms choose to set up operations in countries in which they can gain access to technology or management expertise. For example German, Japanese and Dutch companies have acquired technology buying US-based electronics companies.

(v) Political safety seekers: Firms which are seeking political safety will acquire or set up new operations in those countries which are thought to be unlikely to expropriate or interfere with private enterprises or impose import controls.

(b) Methods of raising capital for small and medium-sized enterprises.

(i) From private investor groups or institutions e.g. from venture capitalists

(ii) Commercial banks credit facilities e.g. overdrafts and short- term loans

(iii) From micro- finance institutions

(iv) Owner's past savings

(v) Loans from trade associations and cooperative societies. Sales of securities to private individuals and groups i.e. issues of equity shares, corporate bonds etc. leasing of assets from lease firms.

(c) (i) Advantages of good corporate governance

(i) Protection of investors rights.

(ii) Enhances corporate performance, capital formation and maximization of shareholders wealth.

(iii) Promoting standards of self -regulation

(iv) Less risk of costly litigation and substantial compensation payouts.

(v) Greater loyalty from customers and employees

END OF SUGGESTED SOLUTION

CA ZAMBIA PROGRAMME EXAMINATION

CA ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA 3.7: PUBLIC SECTOR AUDITS AND ASSURANCE

FRIDAY 13 JUNE 2025

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 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.

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 Ministry of Health of Belize operates a nationwide Malaria Program designed to reduce the incidence and prevalence of malaria. This program includes distributing Insecticide-Treated Mosquito Nets (ITNs), Indoor Residual Spraying (IRS), public health campaigns, and providing malaria testing and treatment services. It is funded by both the Belize government and international donors such as the Global Fund and the World Health Organization (WHO). This fiscal year, the Ministry of Health implemented a modern computer system to integrate financial transactions, procurement, logistics, and patient management, aiming to improve efficiency, transparency, and accountability.

As a Senior Auditor from the Office of the Auditor General, your role is to lead an audit team to assess the financial management, compliance, performance, and IT controls of the Malaria Program. This audit will involve a comprehensive review of financial transactions, procurement processes, adherence to regulations and donor requirements, program performance, and the implementation of the new computer system.

Financial Information

The Malaria Program operates with a total budget of K150 million. Out of this, K90 million has been spent on ITNs, IRS, public health campaigns, and malaria testing and treatment. However, there are concerns about the transparency and accountability of expenditure on these activities. The expenditure records are unclear, which complicates confirming that the K90 million was used in accordance with value for money principles. There are indications of potential mismanagement and fraud, particularly in the procurement of ITNs and IRS chemicals, where inflated invoices and procurement irregularities have been noted.

The budget support from donor funds amounts to K95 million. There is poor accounting for these funds evidenced by poor documentation and poor internal controls. This raises compliance issues and threatens future funding. An unspent balance of K60 million remains, revealing inefficiencies and delays in program implementation. Such delays in utilizing funds could undermine the effectiveness of malaria control measures and impact the program’s overall success.

Compliance Information

The Ministry of Health faces several compliance issues that need immediate attention to ensure adherence to public procurement regulations and donor guidelines. Key challenges include inconsistent procurement practices, inadequate financial documentation, and irregular reporting mechanisms. These issues undermine transparency and accountability, making it difficult to confirm that funds are used effectively and as intended.

Specific compliance problems include non-adherence to procurement procedures, with many processes bypassing competitive bidding and transparency requirements. There are also instances where donor funds intended for malaria treatment have been misused for unrelated activities. Additionally, there is a lack of adequate documentation and record-keeping for financial transactions and program activities, further complicating oversight and accountability.

Performance Improvement
The audit has identified critical performance issues in the Malaria Program requiring urgent attention. A major problem is the lack of a robust ITN distribution strategy, resulting in inconsistent coverage and insufficient focus on high-risk areas. This issue, along with other deficiencies, necessitates immediate action.

Specific performance problems include inadequate IRS coverage, with only 60% of target areas treated versus a 90% goal. Community engagement efforts have failed to effectively reach remote and rural populations. Frequent stock-outs of essential malaria medications at health facilities are causing delays in treatment.

IT System Implementation
The Ministry of Health introduced a new computer system to enhance efficiency and transparency. However, the system faces challenges, including data migration issues, discrepancies in financial records, and insufficient user training, leading to incorrect usage and underutilization. Comprehensive training is essential to improve efficiency and staff proficiency. Additionally, inadequate data management methods result in unreliable outcome reports and tracking issues, while security flaws pose risks of data breaches and loss of confidential information. Addressing these challenges is vital for improving the Malaria Program's effectiveness and resource management.

Threats to Auditor's objectivity
Auditors of the Malaria Program at the Ministry of Health in Belize face significant threats to their independence. Senior officials are pressuring auditors to alter findings or suppress unfavorable results related to potential fraud and mismanagement. Conflicts of interest due to personal or professional connections with Ministry employees impact objectivity. Financial dependence on the Ministry for logistical support may lead auditors to avoid reporting critical issues. Political and public pressures are influencing audit outcomes, while reputational concerns and limited data access further compromise the audit's effectiveness and thoroughness.

Required:

(a) (i) Explain the general objectives of financial, performance and compliance auditing in the public sector. (3 marks)

(ii) Explain four (4) benefits of auditing in the public sector. (4 marks)

(b) Describe four (4) audit procedures to assess the accuracy, transparency, and effectiveness of the expenditure and funding of the Malaria Program. (4 marks)

(c) Explain four (4) threats to the objectivity of auditors and how they could be addressed in the audit of the Ministry of Health of Belize. (8 marks)

(d) Describe four (4) audit procedures that can be undertaken to verify adherence to public procurement regulations and donor guidelines. (6 marks)

(e) Explain the three (3) approaches to performance auditing and how these can be applied in the performance audit of the Ministry of Health of Belize. (9 marks)

(f) Explain four (4) controls that you expect to be in place in the IT System Implementation. (6 marks)

[Total: 40 marks]

SECTION B

There are four (4) questions in this section.

Attempt any three (3) questions.

QUESTION TWO

The Government of Zurich has initiated a review of its payroll management system to address concerns over potential financial mismanagement and fraud. Internal audits and whistleblower reports have highlighted significant irregularities, including discrepancies in payroll records, unauthorized payments, and inconsistencies in employee data. These issues affect the system used to disburse salaries to approximately 200,000 public sector employees, prompting a detailed investigation.

The internal audit reports reveal critical challenges, such as system vulnerabilities that may allow unauthorized access to sensitive payroll data, raising concerns about data security and integrity. Inadequate internal controls and oversight mechanisms have been identified, indicating a lack of effective measures to detect and prevent payroll fraud, leading to potential financial losses and operational inefficiencies. Discrepancies in payroll records further undermine the accuracy of salary disbursements. Signs of fraudulent activities, including unauthorized payments and duplicate salary payments, suggest deliberate manipulation and misuse of the payroll system. Addressing these challenges is crucial for ensuring the system's reliability and security.

You are a Senior Auditor in the Office of the Auditor General assigned to conduct an audit of the Government of Zurich's payroll management system.

The audit aims to uncover and address the following irregularities:

1. **Unauthorized Payments**:
   Some employees, including those no longer with the government or listed as deceased, are still receiving salaries, which are believed to be redirected into accounts controlled by unknown entities.

2. **Discrepancies in Payroll Records**:
   Inconsistencies have been found between payroll records and actual employee attendance. Some employees are receiving payments for positions that do not match their job descriptions or employment status.

3. **Inflated Salaries and Duplicate Payments**:
   Instances of inflated salaries beyond official scales and duplicate payments for the same period suggest potential data manipulation.

4. **System Security and Access Control**:
Concerns exist about the payroll system's security, with indications that unauthorized individuals may have accessed and altered sensitive payroll data without proper oversight.

Required:

(a) Describe five (5) audit procedures for the payroll management irregularities. (5 marks)

(b) Explain five (5) methods that could be used to obtain and evaluate related audit evidence in (a) above. (5 marks)

(c) Explain the five (5) fundamental ethical principles that should be observed in planning and conducting the audit of the payroll management system of Zurich. (5 marks)

(d) Suggest five (5) control activities or measures that could be implemented to prevent unauthorized payments and discrepancies in payroll records. (5 marks)

[Total: 20 Marks]

QUESTION THREE

In response to severe drought conditions impacting the Republic of Katanga, the government has launched an integrated initiative aimed at addressing both the energy and agriculture sectors to mitigate the effects of the crisis. The initiative, named "Resilient Katanga 2024," focuses on improving energy access and agricultural productivity while tackling the immediate challenges caused by the drought. This comprehensive program includes the development of alternative energy sources, implementation of irrigation systems, and enhancement of agricultural practices to ensure food security.

As Lead Auditor, you are tasked with conducting a comprehensive audit of the "Resilient Katanga 2024" initiative. This includes a financial audit, compliance audit, and performance audit to evaluate the effectiveness, efficiency and economy of the initiative.

The financial audit of the "Resilient Katanga 2024" initiative aims to ensure that the K850 million budget is managed and utilized properly, with all expenditure accurately recorded and used for the intended purposes. The "Resilient Katanga 2024" initiative faces several significant challenges, including delays in the implementation of alternative energy projects and irrigation systems due to procurement and logistical issues, which hinder timely progress. There are concerns about the quality and effectiveness of the installed infrastructure and systems, raising doubts about the project's long-term sustainability.

Additionally, inadequate monitoring and evaluation of program outcomes limit the ability to measure the initiative's impact and effectiveness, restricting opportunities for timely improvements. Discrepancies in financial reporting and fund utilization also raise concerns about the proper management of international grants and private sector contributions, highlighting potential issues with financial accountability and transparency.

Required:

(a) Describe four (4) audit procedures you would use to address discrepancies in financial reporting and fund utilization. (4 marks)

(b) Describe the Supreme Audit Institution’s (SAI) objectives in ISSAI 12: Value and benefits of SAIs taking into consideration the drought response in Katanga. (6 marks)

(c) Describe four (4) key areas to examine and the specific procedures to evaluate compliance with the "Resilient Katanga 2024" initiative. (4 marks)

(d) Discuss the requirements related to the main stages of the performance audit process with regard to the audit of the "Resilient Katanga 2024" initiative. (6 marks)

[Total: 20 Marks)

QUESTION FOUR

Green Fields Ltd is a prominent agricultural company operating a large farm in the Northern Province. The company holds a license from the Agricultural Safety Department, which oversees environmental impact and mandates adherence to stringent health and safety regulations for all licensed agricultural operations.

As the Audit Manager in the Office of the Auditor General and on reviewing the previous year activities of Green Field Ltd, you found out that a significant pesticide spill occurred on the farm. This spill contaminated several hundred acres of land, causing substantial soil and water pollution. Consequently, a quarter of the farm is now unusable for agricultural purposes. In response, the company plans to enhance safety protocols, implement regular environmental monitoring, and upgrade equipment. The spill also led to serious injury of a worker, damage to neighboring properties, and temporary relocation of fifty (50) residents.

The company's response to the spill was delayed and ineffective. Immediate actions to address the contamination and mitigate its impact on the farm, neighboring properties, and residents were not timely or adequate, leading to further contamination and prolonged damage. The response plan did not align with industry best practices or regulatory requirements, exposing gaps and weaknesses that worsened the situation. Remediation efforts for the environmental damage were poorly executed or lacking in comprehensiveness and the management of relocation costs and support for displaced residents was ineffective and lacked transparency.

Health and safety protocols were insufficiently implemented. The new protocols were not effectively enforced or monitored, leaving vulnerabilities that could lead to future incidents. Additionally, compensation and support for the injured worker was inadequate and did not meet legal or ethical standards.

Required:

(a) Describe four (4) objectives of a compliance audit of Green Fields Ltd. (4 marks)

(b) Describe the materiality and audit criteria in the audit of Green Fields Ltd.'s compliance with environmental, health, and safety regulations. (4 marks)

(c) Identify and explain the three (3) parties in the performance audit of Green Fields Ltd. (6 marks)

(d) Evaluate whether the company's response to the spill has achieved the three (3) principles of economy, efficiency and effectiveness. (6 marks)

[Total: 20 Marks]

QUESTION FIVE

The Immigration Department of Kariba Republic is responsible for managing visa issuance, border control, and issuing of residence permits. Recently, the department implemented a new IT system and expanded its services. However, these advancements have not come without challenges that necessitate a comprehensive audit examination to address several pressing issues.

There are significant concerns about conflicts of interest among senior officials who have personal connections with travel agencies and legal firms. These relationships raise questions about favoritism in awarding contracts and processing immigration applications. Furthermore, staff members are under pressure to overlook irregularities or expedite processes for certain individuals, compromising the department's integrity.

Allegations of fraudulent activities within the department's procurement processes have also surfaced. Reports indicate manipulation in awarding contracts for immigration-related services to preferred suppliers without proper competitive bidding. Additionally, issues such as inflated invoices and misuse of funds allocated for essential tools and services are affecting the department's operational efficiency.

The implementation of the new immigration management system has encountered significant problems, including frequent outages, data security vulnerabilities, and integration issues with existing databases. Insufficient user training has further contributed to inefficiencies and an increase in the rate of errors. The department is also facing performance issues, such as delays in processing visa applications and citizenship requests, declining client satisfaction, and resource allocation challenges. These issues are creating operational bottlenecks and hindering the effectiveness of new initiatives aimed at improving service delivery and border security.

As Senior Auditor in the Office of the Auditor-General (OAG) responsible for the audit of the Immigration Department of Kariba Republic, you are tasked to conduct a forensic investigation due to significant allegations of misconduct and operational issues.

Required:

(a) (i) Describe the scope of the forensic investigation of the Immigration Department. (2 marks)

(ii) Describe three (3) objectives of the forensic investigation of the Immigration Department. (6 marks)

(b) Describe any four (4) key stages you will follow in the forensic audit of the Immigration Department. (4 marks)

(c) Discuss two (2) general and two (2) application IT controls you expect to find on the new immigration management system. (4 marks)

(e) Describe the four (4) audit evidence you can obtain in the forensic audit of the Immigration Department of Kariba Republic. (4 marks)

[Total: 20 Marks]

END OF PAPER

CA3.7 PUBLIC SECTOR AUDIT AND ASSURANCE - SUGGESTED SOLUTIONS

SOLUTION ONE

(a) (i) Objectives of financial, performance and compliance audits.

(i) Financial audit – The objective of the financial sector auditor is to obtain that the financial statements in the public sector have been prepared in accordance with the applicable financial reporting framework.
(ii) Performance auditing – The objective of performance audits is to enable the public sector auditor establish whether or not public expenditure in line with the value for money principles of economy, efficiency and effectiveness.
(iii) Compliance auditing – The objective of compliance auditing is to establish whether or not there has been compliance of systems, programs etc. with a suitable criteria derived from laws and regulations.

(ii) Benefits of auditing in the public sector:

(1) Public Confidence: Strengthens public confidence in government by ensuring funds are managed properly.
(2) Risk Mitigation: Identifies risks and provides recommendations to mitigate them.
(3) Better Decision-Making: Provides objective information that supports better decision-making by government officials.
(4) Enhanced Governance: Promotes better governance through accountability and transparency.
(5) Fraud Detection and Deterrence: Detects and deters fraudulent activities, protecting public resources.
(6) Improved Program Outcomes: Leads to better program outcomes by identifying areas for improvement and ensuring funds are directed where most needed.

(b) Audit Procedures to Assess the Accuracy, Transparency, and Effectiveness of Expenditures and Funding

(i) Review Financial Records: Examine financial records related to the K90 million expenditure to ensure accuracy and transparency.
(ii) Reconciliation: Reconcile expenditure records with bank statements, invoices, and other supporting documents.
(iii) Sample Testing: Conduct sample testing of transactions to verify the authenticity and accuracy of financial records.
(iv) Review Procurement Processes: Examine procurement documentation to identify any irregularities or inflated invoices.
(v) Donor Fund Tracking: Track the international donations to ensure they have been used according to donor agreements.
(vi) Expenditure Analysis: Analyze expenditure patterns to identify any anomalies or potential mismanagement.
(vii) Interview Stakeholders: Conduct interviews with key personnel involved in the procurement and financial management processes to assess their understanding and adherence to policies.

(c) Threats to the objectivity of Auditors:

Pressure from Senior Officials: Senior officials are pressurizing auditors to alter findings.
Safeguard:
Audit staff should not succumb to the pressure to alter findings and should report this to the senior members of staff within the Office of the Auditor General.

Conflicts of Interest: Auditors have personal or professional relationships with Ministry employees.
Safeguard:
Audit staff that have personal or professional relationships with staff in the Ministry of Health should be removed from this audit and replaced with staff that do not have any relationship.

Financial Dependence: Auditors relying on the Ministry for logistical support may avoid reporting critical issues.
Safeguard:
The staff on the audit of the Ministry of Health should decline any logistical support. The OAG is supposed to be financially independent and is allocated funds to meet its operational expenses.

Political and Public Pressure: External pressures may influence audit outcomes. This pressure amounts to intimidation of the audit team members which will impact their objectivity.
Safeguard:
The audit team members should not succumb to the political pressure because the Office of the Auditor General is independent in order to ensure that staff are not afraid of being victimized on account of carrying out their duties.

(d) Audit Procedures to Verify Adherence to Public Procurement Regulations and Donor Guidelines

(i) Document Review: Examine procurement documents to ensure compliance with public procurement regulations.
(ii) Competitive Bidding Verification: Verify that competitive bidding processes were followed and documented.
(iii) Contract Examination: Review contracts awarded to ensure they were in line with procurement regulations and donor guidelines.
(iv) Supplier Vetting: Check the vetting process for suppliers to ensure they meet required standards.
(v) Donor Compliance Check: Review donor agreements and verify that funds were used according to specified guidelines.
(vi) Procurement Committee Review: Assess the involvement and decision-making processes of procurement committees.

(e) The three (3) approaches to conducting a performance audit in relation to the audit of Belize.

Conducting a performance audit for the Malaria Program in Belize can be approached using three distinct methodologies: system-oriented, result-oriented, and problem-oriented. Each approach has its unique focus and provides a different perspective on the audit's objectives and findings. Here's how each approach would be applied to the audit of the Malaria Program:

(1) System-Oriented Approach
Focus: This approach emphasizes evaluating the systems and processes in place within the Malaria Program. It aims to assess how effectively the systems support the program's goals and identify any weaknesses in these systems.

Application:
(i) IT System Evaluation: Assess the new computer system's implementation, including its integration with financial transactions, procurement, logistics, and patient management. Review data migration processes, user training, and data management practices to ensure the system is functioning as intended.
(ii) Procurement Processes: Examine procurement practices for ITNs and IRS chemicals to ensure compliance with public procurement regulations. Evaluate whether the procurement system supports transparency and accountability.
(iii) Internal Controls: Review the internal control mechanisms for financial management and compliance with donor requirements. Assess the adequacy of documentation and record-keeping practices.
(iv) Operational Efficiency: Analyze how well the systems are contributing to operational efficiency and effectiveness in distributing ITNs, conducting IRS, and managing public health campaigns.
Objective: Identify system inefficiencies or flaws that may be affecting the program's performance and suggest improvements to enhance overall functionality.

(2) Result-Oriented Approach
Focus: This approach concentrates on evaluating the outcomes and impacts of the Malaria Program. It aims to determine whether the program is achieving its intended results and meeting its performance targets.

Application:

(i) Performance Metrics: Review the achievement of performance targets, such as IRS coverage and ITN distribution. Assess the program's effectiveness in reducing malaria incidence and prevalence.
(ii) Impact Assessment: Evaluate the impact of public health campaigns and treatment services on malaria control. Analyze the correlation between program activities and reductions in malaria cases.
(iii) Budget Utilization: Assess how effectively the K90 million expenditure has contributed to achieving program goals. Investigate any inefficiencies or delays in fund utilization and their impact on program outcomes.
(iv) Donor Fund Management: Review the utilization of K95 million in donor funds, ensuring that the funds are used according to donor guidelines and have contributed to the program's success.
Objective: Determine the extent to which the Malaria Program is meeting its objectives and delivering value for money. Provide recommendations for improving performance to achieve better results.

(3) Problem-Oriented Approach
Focus: This approach targets specific issues or problems identified within the Malaria Program. It aims to address and resolve these problems to improve overall program performance and compliance.

Application:

(i) Financial Irregularities: Investigate concerns about potential mismanagement and fraud, particularly in the procurement of ITNs and IRS chemicals. Review expenditure records and procurement practices to identify irregularities and recommend corrective actions.
(ii) Compliance Issues: Address non-compliance with procurement procedures and donor requirements. Develop strategies to improve adherence to regulations and enhance financial documentation and reporting mechanisms.
(iii) Performance Deficiencies: Tackle specific performance issues, such as inadequate ITN distribution coverage and stock-outs of essential medications. Propose solutions to improve community engagement, distribution strategies, and treatment availability.
(iv) IT System Challenges: Resolve issues related to the new computer system, including data migration problems, training deficiencies, and security flaws. Recommend measures to improve system effectiveness and user proficiency.
Objective: Directly address and resolve identified problems to enhance the program's overall performance, compliance, and efficiency.

(f) Controls expected to be in IT System Implementation:

When implementing an IT system in the context of the Malaria Program in Belize, several critical controls are expected to be in place to ensure the system's effectiveness, security, and reliability. Below are four key controls that should be implemented, each contributing to different aspects of the system's integrity and performance:

(1) Access Control
Purpose: To ensure that only authorized personnel have access to the system and its sensitive data.
(i) Implementation: This control involves setting up user roles and permissions, ensuring that users can only access information and functions relevant to their job responsibilities. Multi-factor authentication (MFA) should be employed to enhance security, and access logs should be maintained to track any unauthorized attempts to access the system.
(ii) Importance: Proper access control helps prevent unauthorized access to sensitive data, reduces the risk of data breaches, and ensures accountability for actions taken within the system.

(2) Data Integrity and Validation Controls
(i) Purpose: To ensure the accuracy, completeness, and consistency of data entered into the system.
(ii) Implementation: This includes input validation rules to prevent incorrect or incomplete data entry, as well as automated checks to detect and correct errors in data migration from legacy systems. Regular audits of data integrity should also be conducted to identify any discrepancies.
(iii) Importance: Maintaining data integrity is crucial for reliable decision-making and reporting, as it ensures that all information processed by the system is accurate and trustworthy.

(3) System Security Controls
(i) Purpose: To protect the system from external and internal threats, including cyber-attacks, data breaches, and unauthorized access.
(ii) Implementation: Security controls include firewalls, encryption of sensitive data both at rest and in transit, regular security updates and patches, and vulnerability

assessments. Additionally, an incident response plan should be in place to quickly address any security breaches.

(iii) Importance: Robust system security controls are essential to safeguarding the confidentiality, integrity, and availability of the system's data and ensuring compliance with relevant data protection regulations.

(4) User Training and Support

(i) Purpose: To ensure that all users of the system are adequately trained to use it effectively and understand the security protocols.

(ii) Implementation: This control involves providing comprehensive training programs for all users, including ongoing training sessions to keep users updated on new features and security practices. A support system, such as a helpdesk, should be available to assist users with any issues they encounter.

(iii) Importance: Proper training and support ensure that the system is used correctly and efficiently, reducing the likelihood of errors, misuse, and underutilization, which can undermine the system's intended benefits.

These four controls—Access Control, Data Integrity and Validation Controls, System Security Controls, and User Training and Support—are vital to the successful implementation and operation of the new IT system in Belize's Malaria Program. Each control plays a critical role in ensuring the system's security, reliability, and effectiveness, thereby contributing to the overall success of the program.

SOLUTION TWO

(a) Audit Procedures for Payroll Management Irregularities.

(1) Reconciliation of Payroll Records:

Compare payroll records with official employee attendance logs, HR records, and employment contracts to identify discrepancies between payments made and actual employee status.

(2) Data Analytics for Duplicate Payments:

Use data analytics tools to detect patterns of duplicate payments, inflated salaries, and unauthorized transactions by analyzing the payroll data for anomalies such as duplicate employee IDs, identical bank account numbers, or suspicious salary adjustments.

(3) Review of Access Logs and System Security:

Audit the payroll system's access logs to identify unauthorized access attempts and ensure that system security controls are in place and functioning effectively. Review user permissions and roles to verify that only authorized personnel have access to sensitive payroll data.

(4) Verification of Employee Existence:

Conduct physical verification or third-party confirmation of a sample of employees listed in the payroll records to confirm their existence, employment status, and that they are receiving the correct salary.

(5) Examination of Payment Processes:

Review the payment authorization process, including the workflow for salary approvals, to identify any unauthorized or fraudulent activities. Ensure that there are adequate checks and balances in place to prevent unauthorized payments.

(6) Authorisation of payroll expenditure:
For a sample of payroll records inspect authorization of changes to standing data to ensure authorized by responsible officials.
Review payroll prepared for a sample of months and transfers to the bank for appropriate checking and authorization by responsible officials.

(b) Methods to obtain and evaluate audit evidence

(1) Interviews and Questionnaires:

Conduct interviews with payroll staff, HR personnel, and employees to gather information on payroll processes, controls, and any known irregularities. Questionnaires can also be distributed to gather consistent information from a broader group.

(2) Document Examination:

Review payroll records, employee contracts, attendance logs, bank statements, and access control logs to verify the accuracy and authenticity of the records. Cross-check these documents to identify any inconsistencies or discrepancies.

(3) Data Analytics:

Use data mining and analytical software to process large volumes of payroll data, identifying trends, patterns, and outliers that could indicate fraud, duplicate payments, or unauthorized salary adjustments.

(4) Observation:

Observe the payroll processing activities, including the steps involved in salary calculation, authorization, and disbursement. This helps to identify weaknesses in the process that may allow for fraud or errors.

(5) Re-performance:

Independently re-perform key payroll calculations to verify the accuracy of salary disbursements and detect any instances of inflated salaries or unauthorized payments. This can involve recalculating payroll amounts based on official salary scales and employee records.

(c) Fundamental ethical principles to be observed in the audit of the payroll management system of Zurich.

(1) Integrity:

Auditors should act with honesty and fairness, avoiding any conflicts of interest or actions that could compromise the accuracy and objectivity of the audit.

(2) Confidentiality:

Maintain the confidentiality of sensitive payroll data and employee information encountered during the audit. This includes not disclosing any information to unauthorized parties.

(3) Independence and objectivity:

Ensure that all findings and conclusions are based on objective evidence, free from bias or influence by any parties involved in the payroll system.

(4) Professional Competence and Due Care:

Auditors must possess the necessary skills and knowledge to conduct the audit effectively and must perform their duties with due diligence, ensuring a thorough and accurate assessment.

(5) Professional behavior:
The audit team members should conduct themselves in a manner that will not discredit the profession during the conduct of the audit of the payroll management system.

(d) Control Measures to Prevent Unauthorized Payments and Discrepancies in payroll records:

(1) Strengthening Access Controls:

Implement strong access control mechanisms, such as multi-factor authentication (MFA) and role-based access, to ensure that only authorized personnel can access and modify payroll data.

(2) Regular Payroll Reconciliation:

Conduct periodic reconciliations between payroll records, HR data, and actual payments to detect and correct any discrepancies in a timely manner.

The use of payroll control account to identify any discrepancies that may exist.

(3) Automated Validation Checks:

Implement automated checks within the payroll system to validate employee data, such as checking for duplicate entries, ensuring payments align with official salary scales, and flagging any inconsistencies.

(4) Independent Payroll Audits:

Schedule regular internal and external audits of the payroll system to identify potential fraud or errors. This provides an independent assessment of the payroll processes and controls.

(5) Employee Verification and Exit Procedures:

Strengthen procedures for verifying employee status, particularly during hiring, termination, and exit processes, to ensure that only active employees receive payments and that payroll records are promptly updated when an employee leaves the organization.

(6) Segregation of duties – so than no one person performs all the payroll functions. All payroll work undertaken should be independently reviewed by someone else other than the originator.

SOLUTION THREE

(a) Audit procedures to address discrepancies in Financial Reporting and Fund.

(1) Review of Financial Statements and Reports: Analyze the financial statements, reports, and ledgers to identify any discrepancies between recorded expenditures and budget allocations. This includes tracing transactions to their source documents to ensure accuracy and legitimacy.
(2) Reconciliation of Financial Records: Conduct detailed reconciliations of a sample of financial records, including bank statements, ledgers, and cash flow statements, to ensure that all reported figures are consistent and correct. Investigate and resolve any discrepancies that emerge during the reconciliation process.
(3) Verification of Supporting Documentation: Examine all supporting documents such as invoices, receipts, contracts, and purchase orders to verify that a sample of expenses were properly authorized, supported, and aligned with the initiative's objectives. This ensures that all transactions are legitimate and properly documented.
(4) Review the management and utilization of grants and funds: Review the management and utilization of grants and funds provided by international donors and private sector contributors. Ensure that the funds are used in compliance with donor agreements and are appropriately recorded and reported.

(b) Objective of the Supreme Audit Institution (SAI) on Value and Benefits (ISSAI 12) and how it Addresses the Drought in Katanga

(1) Strengthening Accountability, Integrity, and Transparency:

The SAI ensures that public resources are used effectively and responsibly. By auditing the "Resilient Katanga 2024" initiative, the SAI holds government officials and project managers accountable for the proper management of the K850 million budget. This promotes transparency and integrity in how the funds are utilized to address the drought, ensuring that the resources are directed towards intended outcomes.

(2) Demonstrating Ongoing Relevance:

The SAI demonstrates its relevance by addressing critical issues like the drought in Katanga. Through this audit, the SAI contributes valuable insights and recommendations that help improve the initiative's effectiveness, ensuring that the government’s response to the crisis is both timely and impactful. This enhances public trust in the SAI's ability to address significant national challenges.

(3) Being a Model Organization:

The SAI will act as a role model in the context of it complying with the principles of transparency and accountability in the use of public funds appropriated to it. This is what it expects of the responsible parties involved with the issue of addressing the drought in Katanga.

(c) Key Areas to Examine and Specific Procedures to Evaluate Compliance with the "Resilient Katanga 2024" Initiative

(1) Procurement Processes:

Procedure: Review procurement documentation, including tendering processes, contract awards, and vendor selection criteria, to ensure compliance with legal and regulatory requirements. Verify that all procurement activities are conducted transparently and in accordance with established procedures.

(2) Budgetary Compliance:

Procedure: Compare actual expenditures with budgetary allocations to ensure that funds are being spent according to the approved budget. Check for any unauthorized reallocation of funds and ensure that all expenditures are aligned with the initiative's objectives.

(3) Adherence to Donor Requirements:

Procedure: Examine compliance with the specific conditions and requirements set by international donors and private sector contributors. This includes verifying that funds are used for the designated purposes and that all reporting obligations to donors are met.

(4) Monitoring and Evaluation Compliance:

Procedure: Assess the systems and processes in place for monitoring and evaluating the initiative's progress and outcomes. Verify that these systems are functioning as intended and that the data collected is accurate, timely, and used for making informed decisions.

(d) Requirements Related to the Main Stages of the Performance Audit Process with Regard to the Audit of the "Resilient Katanga 2024" Initiative

(1) Planning Stage:

Requirement: Develop a comprehensive audit plan that outlines the scope, objectives, and methodologies for the performance audit. This includes identifying key performance indicators, understanding the initiative's goals, and assessing potential risks. The plan should be based on a thorough understanding of the "Resilient Katanga 2024" initiative and its components, such as energy projects, irrigation systems, and agricultural programs.

(2) Execution Stage (Fieldwork and Data Collection):

Requirement: Gather and analyze data through documentation reviews, interviews, surveys, and on-site inspections. This stage involves assessing the implementation of alternative energy projects and irrigation systems, as well as the effectiveness of agricultural practices. Data collected should be comprehensive and accurate to allow for a robust analysis of the initiative's performance.

(3) Reporting Stage:

Requirement: Prepare a detailed audit report that presents the findings, conclusions, and recommendations. The report should highlight areas where the initiative is meeting its objectives, as well as areas where improvements are needed. The findings should be communicated clearly to stakeholders, including recommendations for enhancing the effectiveness, efficiency, and sustainability of the initiative.

(4) Follow-Up Stage:

Requirement: Conduct follow-up activities to ensure that the recommendations from the audit report are implemented. This involves monitoring the progress of corrective actions and assessing whether the improvements have led to better outcomes in the initiative. The follow-up stage is crucial for ensuring that the

SOLUTION FOUR

(a) Objectives of the Compliance Audit of Green Fields Ltd.

(1) Evaluate Adherence to Environmental Regulations:

Assess whether Green Fields Ltd. complies with environmental regulations set by the Agricultural Safety Department, particularly concerning pesticide use, storage, and disposal.

(2) Assess Health and Safety Compliance:

Determine if the company's health and safety protocols meet the required standards and are properly implemented to protect workers and the surrounding community.

(3) Review Effectiveness of the Incident Response:

Examine the adequacy and timeliness of Green Fields Ltd.'s response to the pesticide spill, including immediate actions taken to mitigate environmental and health impacts.

(4) Analyze Remediation and Compensation Measures:

Evaluate the effectiveness of the remediation efforts for environmental damage and assess whether compensation and support provided to the injured worker and displaced residents align with legal and ethical standards.

(5) Review Compensation and Support Measures:

Assess whether the compensation and support provided to the injured worker and displaced residents are in line with legal requirements and ethical standards.

(b) Materiality and Audit Criteria in the Audit of Green Fields Ltd.'s Compliance with Environmental, Health, and Safety Regulations

(1) Materiality:

In the context of this compliance audit, materiality refers to the significance of non-compliance issues that could impact the overall audit findings. For Green Fields Ltd., materiality would be assessed based on factors such as the extent of environmental damage caused by the pesticide spill, the financial implications of the response and remediation efforts, and the potential harm to public health and safety. Issues that could lead to severe environmental degradation, significant legal penalties, or substantial harm to individuals would be considered material.

(2) Audit Criteria:

Audit criteria are the benchmarks against which Green Fields Ltd.'s compliance is assessed. In this audit, criteria would include:

Regulatory Standards: Legal requirements set by the Agricultural Safety Department and other relevant bodies regarding pesticide use, environmental protection, and workplace safety.

Industry Best Practices: Accepted practices within the agricultural sector for handling hazardous materials, incident response, and remediation.
Company Policies: Internal policies and procedures of Green Fields Ltd that relate to environmental management and health and safety protocols.
International Standards: Relevant international standards for environmental management (e.g., ISO 14001) and occupational health and safety (e.g., ISO 45001).

(c) Three Parties in the Performance Audit of Green Fields Ltd.

(1) Auditee (Green Fields Ltd.):

The auditee is the organization being audited. Green Fields Ltd. is responsible for adhering to the relevant regulations and for providing access to necessary records, documents, and facilities during the audit.

(2) Auditors (Office of the Auditor General):

The auditors are responsible for conducting the audit, gathering and analyzing evidence, and forming an opinion on Green Fields Ltd.'s compliance with environmental, health, and safety regulations. They assess whether the company's practices meet the required standards and provide recommendations for improvement.

(3) Regulatory Body (Agricultural Safety Department):

The regulatory body establishes the legal and regulatory framework within which Green Fields Ltd. operates. It has a vested interest in ensuring that the company complies with the regulations it enforces, and the audit findings may inform its future oversight and enforcement actions.

(d) Evaluation of value for money principles with regards to the spill:

(1) Economy:

Green Fields Ltd.'s response to the spill lacked economy, as resources were not used optimally. The delayed and inadequate response likely led to higher costs for environmental remediation and compensation, which could have been reduced with a more timely and effective approach.

(2) Efficiency:

The company's response was inefficient. The delayed actions and poor execution of remediation efforts indicate that resources and efforts were not deployed in a manner that maximized results. The inefficiency is further reflected in the prolonged damage and the inadequate management of relocation and compensation for affected parties.

(3) Effectiveness:

The response was ineffective in mitigating the impact of the spill. The failure to implement a timely and comprehensive response, aligned with best practices and regulatory requirements, led to further contamination and inadequate support for those affected. This indicates a lack of effectiveness in achieving the intended outcomes of protecting the environment, ensuring safety, and compensating affected individuals.

SOLUTION FIVE

(a) Scope and Objectives of a Forensic Investigation

(i) Scope:

Conflicts of Interest: Investigate the relationships between senior officials and external parties, such as travel agencies and legal firms, to assess the extent of favoritism or undue influence in awarding contracts and processing immigration applications.

Procurement Fraud: Examine the procurement processes, focusing on manipulation in awarding contracts, inflated invoices, and misuse of funds allocated for essential services and tools.

IT System Issues: Assess the implementation of the new immigration management system, including frequent outages, data security vulnerabilities, integration problems, and the adequacy of user training.

Operational Performance: Evaluate operational inefficiencies, delays in processing visa applications, citizenship requests, and customer satisfaction to identify systemic weaknesses.

(ii) Objectives of the Forensic Investigation:

(i) Identify and Document Fraud: Uncover any fraudulent activities within the procurement processes and other operations of the Immigration Department.
(ii) Assess Integrity of Systems: Determine the reliability and security of the new IT systems, including identifying vulnerabilities and recommending improvements.
(iii) Evaluate Internal Controls: Assess the effectiveness of internal controls in preventing conflicts of interest, favoritism, and fraud within the department.
(iv) Ensure Accountability: Hold responsible parties accountable for any identified misconduct, ensuring that appropriate legal and administrative actions are taken.

(b) Key Stages in Forensic Audit

(1). Planning:

Develop a comprehensive audit plan detailing the scope, objectives, methodologies, and resources required. This stage involves defining the audit’s focus areas and determining the approach for investigation.

(2). Evidence Collection:

Gather relevant documents, records, and other forms of evidence. This may include financial records, procurement files, system logs, and interviews with key personnel to obtain information related to the allegations.

(3). Analysis:

Analyze the collected evidence to identify patterns of misconduct, fraud, or inefficiencies. This involves scrutinizing financial transactions, procurement processes, and IT system performance to uncover any irregularities or issues.

(4). Reporting:

Prepare a detailed report summarizing the findings, conclusions, and recommendations. The report should address the identified issues, provide evidence-based conclusions, and suggest corrective actions to address the problems discovered.

(c) General and Application IT Controls

General IT Controls:

(i) Access Controls: Implement measures to restrict unauthorized access to the IT system, ensuring only authorized personnel can access sensitive information.
(ii) Regular System Backups: Conduct regular backups of system data to prevent data loss in case of system failures.
(iii) Physical Security: Ensure the physical security of IT infrastructure, including server rooms and hardware, to prevent unauthorized access or damage.

Application IT Controls:

(i) User Authentication: Enforce robust user authentication mechanisms, such as passwords or biometric verification, to secure access to the immigration management system.
(ii) Data Encryption: Use encryption techniques to protect sensitive data from unauthorized access and ensure data integrity.
(iii) Error Handling Procedures: Implement procedures to handle and log system errors effectively, minimizing their impact on system performance and data accuracy.

(d) Audit Evidence to obtain

(1). Financial Records:

Review invoices, contracts, and expenditure reports to identify discrepancies, fraudulent activities, or misuse of funds.

(2). System Logs:

Analyze IT system logs to detect any unauthorized access, system failures, or irregular activities that could indicate security breaches or inefficiencies.

(3). Interviews:

Conduct interviews with staff and other relevant stakeholders to gather insights into potential misconduct, operational issues, or areas of concern.

(4). Procurement Documentation:

Examine procurement files and bidding processes to assess compliance with regulations and identify any irregularities or favoritism in the awarding of contracts.

END OF SUGGESTED SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA 3.8: PUBLIC SECTOR FINANCIAL MANAGEMENT

FRIDAY 13 JUNE 2025

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: There are 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 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

The Livingstone City Council (LCC) is considering an investment in a tourist site for both local and international tourists. The tourist site is expected to cost a total of K150 million to construct and would take a period of two years before becoming fully operational. It is expected that 60% is payable immediately, and the rest in one year's time. Working capital at current price of K10 million will be required at the end of year one and is expected to increase in line with the general inflation rate of 15% per year. The realizable value of the non-current assets is expected to be K20 million after five (5) years of operation. A significant additional investment will be required to continue operating after 5 years.

The tourist site is expected to attract an average of 200 visitors per day for each of the five years. The current price of admission to the tourist site is expected to be K25 per local tourist and $50 per international tourist regardless of age. It is expected that 60% of tourists will be local. In addition to admission revenues, it is expected that an average tourist will spend K150 on food and drinks, and K350 on gifts. The markup on both food and drinks and gift is 45% and 35% respectively. The tourist site would open throughout the seven days of a week per year.

Maintenance costs are expected to be K1.7 million at current price in the first year of operation. Annual insurance costs are K0.3 million, and the council would allocate K0.35 million per year to the new tourist site from existing council overheads. The tourist site would require 250 full time staff costing a total of K1.1 million per annum (at current prices). Advertising costs will amount to K0.3 million for the first two years of operation.

All operational costs are expected to increase in line with the annual general inflation rate. However, revenue is expected to increase by 20% per year.

All entities in the public sector are expected to use a discounting rate of 8% for capital investment evaluation, which has been provided for in a circular issued by the Minister of Finance. The use of any other discounting rate would not be acceptable. The financing of the project will come from the surplus from government recurring grants allocated to the council in the national budget. However, some councilors have suggested the use of a lease agreement or concessions.

Projected exchange rate is:

ZMW/USD$ 27.4 – 28.1

Assume 365 days in a year.

Required:

(a) Evaluate the proposed investment in the tourist site project using the Net Present Value method of investment appraisal. (22 marks)

(b) Discuss the appropriateness of the use of the government recurring grant to finance the investment in the tourist site. (6 marks)

(c) Explain how a lease agreement would be arranged to finance the tourist site project. (5 marks)

(d) Distinguish concession arrangement and a leasing agreement as a way of financing the tourist site project. (7 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt any THREE (3) questions.

QUESTION TWO

(a) Zambia is currently implementing medium term framework (MTEF) and the output-based budget framework designed to permit a more strategic approach to annual budget formulation. This framework has its own challenges such as maintaining budget credibility and accumulation of arrears.

Required:

(i) Explain Budget Credibility and why realistic budgets are a prerequisite of effective budget execution. (6 marks)

(ii) Discuss the issues Ministries, Provinces and Agencies face with spending commitments under the framework. (10 marks)

(b) Good Public Financial Management Practice will see all entities producing annual financial reports, which are subject to independent external audit scrutiny. Article 211(3) of the Constitution of Zambia mandates the Minister of Finance to lay before the National Assembly the Financial Report for the Republic of Zambia before 30 June.

Required:

Explain the financial reporting and External Audit Scrutiny process in Zambia.

(4 marks)
[Total: 20 Marks]

QUESTION THREE

The Government of the Republic of Zambia is in the process of undertaking a Public Expenditure Financial Accountability (PEFA) assessment to assess the status of Public Financial Management systems at Central and Local Government levels. Other stakeholders strongly feel this was not necessary and a waste of resources and time.

Required:

(a) Prepare a paper explaining the benefits of the PEFA framework can bring to a country.

(14 marks)

(b) Explain the sources of information for the PEFA framework. (6 marks)
[Total: 20 Marks]

QUESTION FOUR

The Government of Zambia, committed to fostering economic transformation and sustainable development, has launched an ambitious program to modernize its critical infrastructure. Amid an environment marked by fluctuating commodity prices, variable foreign direct investments, and evolving macroeconomic indicators, the Ministry of Finance has been tasked with selecting one of three strategic investment projects. The selected project will be funded from a limited public budget and is expected to deliver significant annual cost savings, while also addressing key public needs.

In recent consultations with both public and private stakeholders, it has become evident that opinions on risk vary considerably. Some investor groups inspired by Zambia's recent economic upturn and rising copper prices, exhibit a risk-seeking attitude. In contrast, other stakeholders, mindful of the volatility in economic conditions and the imperative to protect public funds, are strongly risk-averse. A third contingent is focused on minimizing the potential for regret in decision-making by choosing an option that minimizes the shortfall from the best possible outcome under each economic scenario.

You are a consultant at the Ministry of Finance. To support this decision; you have evaluated three potential projects with the following expected annual cost savings (in K'million).

Project	**High Economic Growth**	**Moderate Economic Growth**	**Low economic Growth**
Project Road connect	350	260	180
Project Urban Revamp	330	300	200
Project Green Power	310	280	220

Required:

Using the data provided and considering the varied risk attitudes of investors:

(a) Assess the project that is preferable by each of the following category of investors:

(i) Risk Seekers (2 marks)

(ii) Risk Averse (2 marks)

(b) Advise Government what other information would be required to incorporate risk neutral investors in the consultation process. (5 marks)

(c) Construct the minimax regret table and recommend which project would be selected using the minimax regret model, giving reasons. (7 marks)

(d) Advise the government which project offers the most balanced decision-making approach given the diverse risk attitudes of the investors and public sector financial management principles. (4 marks)

[Total: 20 Marks]

QUESTION FIVE

The Zambia Water & Sanitation Authority (ZWSA) is considering a Public-Private Partnership (PPP) project to construct a wastewater treatment plant to improve sanitation services in Lusaka. Currently, untreated sewage is discharged into local streams, leading to environmental hazards and public health risks. The new treatment plant aims to process 50 million liters per day, reducing pollution and providing clean water for industrial reuse.

The total capital expenditure (CAPEX) for the project is estimated at K80 million, and the CAPEX will be funded in full immediately. Funding will come from government grants (40%) and a private investor contribution (60%), which must be repaid through user fees over a 10-year concession period. If government fails to meet their commitment, then ZWSA will have no choice but to source funding from the private sector.

Annual Revenue from user Fees is estimated at K25 million per year for 10 years. Annual Operating Costs are forecast at K8 million per year. Residual Value is estimated at K20 million at the end of Year 10. The government uses a discount rate of 12% for similar projects.

If the project faces financial distress, the government will cover up to 30% of losses for the first five years.

Potential Risks Identified

1) Revenue Shortfall: Demand for treated water may be lower than expected. If user adoption is only 70%.

2) Operating Cost Escalation: Maintenance and energy costs could increase by 30%.

3) Funding Delays: If the private investor delays their contribution, the project start could be postponed by one year, leading to additional costs of K5 million.

4) Government Withdrawal: There is a 40% probability that the Government will reduce its financial commitment, increasing the private investor's funding burden. ZWSA management would like to know the financial impact of this risk.

Required:

(a) Calculate Net Present Value (NPV) of the project, assuming all initial estimates hold.

(4 marks)

(b) Advise ZWSA management the possible financial implications of increased private funding given the government probable reduction of funding by 40%. (8 marks)

(c) Conduct a Sensitivity Analysis to assess the impact on NPV if:

(i) Revenue drops to 70% per year due to lower user adoption. (2 marks)

(ii) Operating costs rise by 30% per year due to inflation and higher maintenance. (2 marks)

(d) Advise ZWSA management how they can mitigate the potential risks identified and recommend whether or not they should proceed with the proposed project.

(4 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.

CA 3.8: PUBLIC SECTOR FINANCIAL MANAGEMENT - SUGGESTED SOLUTIONS

SOLUTION ONE

(a) FINANCIAL EVALUATION USING NPV

Year	0	1	2	3	4	5	6
Revenue (W1)	K'000 -	K'000 -	K'000 79,155.36	K'000 94,986	K'000 113,984	K'000 136,780	K'000 164,137
Operational Costs	-	-	- 4,099.75	- 4,715	- 5,422	- 6,235	- 7,170
Working Capital		-11,500	- 1,725.00	-1,984	-2,281	- 2,624	20,114
Investment Cost	-90,000	-60,000	-	-	-	-	20,000
Net Cash flow	- 90,000.	- 71,500	73,331	88,288	106,280	127,922	197,0880
Discount @8%	1.000	0.926	0.857	0.794	0.735	0.681	0.630
Present Values	- 90,000	- 66,209	62,844	70,101	78,116	87,115	124,160
NPV	266,127						

The project should be undertaken as it provide a positive NPV of K266million meaning it is profitable investment.

Workings

(1) Revenue for the first year of operations

	K'000
Local Tourist: 60% x 200 x K25 x 365 x $(1.2)^2$	1,576.80
International Tourist: 40% x 200 x$50 x27.4x 365 x $(1.2)^2$	57,605.76
Food & Drinks: 200 x K150 x 45% x 365 x $(1.2)^2$	7,095.60
Gifts: 200 x K350 x 35% x 365 x $(1.2)^2$	12,877.20
Total earnings	79,155.36

(2) Operating costs for the first year of operations

Maintenance cost: K1,700,000 x $(1.15)^2$	2,248.25

Insurance: K300,000 x $(1.15)^2$ 396.75

Labour: K1,100,000 x $(1.15)^2$ 1,454.75

Total operational expenses 4,099.75

(3) Working capital investment required in year 1 (10m x 1.15)	11,500	13,225	15,209	17,490	20,114.	23,131.
Incremental	-11,500	- 1,725	- 1,984	- 2,281	- 2,623	- 3,017

(b) Use the government grants to finance the investment

The government grants are provided to finance the operations of the councils as opposed to financing proposed capital projects. As mentioned in the scenario, the amounts available each year depend on the allocation in the national budget.
In case there is a surplus from a grant in the current year, then there is a possibility that the amount may go towards the payment of the K90 million required now.
Such a surplus is however highly unlikely to arise because the amounts that are provided to councils by way of government recurring grants are usually considered to be inadequate to finance the operations. Councils have therefore, been encouraged to raise funds through several means, including borrowing.

(c)
The private firm (lessor) will be paying lease rentals to LCC to operate the tourist site. It is a form of public private partnership (PPP). The private firm will then charge customers for admission and any other services provided at the customers. In this way LCC will be guaranteed a fixed income while the risk of a fall in demand will be borne by the private firm.
LCC will be responsible for ensuring the availability of the tourist site and ongoing maintenance which it will fund from the lease rentals it will be receiving from the firm.
The benefit to LCC is that it might benefit from the expertise of the private sector firm if it is an expert in the tourism industry.

(d)

A concession is another method of public private partnership (PPP). Under this method LCC will transfer the long term right to run the tourism site to a concessionaire. The concessionaire will also be given the right to finance the construction of tourism site. The concessionaire will generate revenue from operation of the tourism site and will be required to pay a concession fee to LCC.A concession arrangement will transfer more risks to the private sector such as construction and demand fluctuations. As with leases a concession will expose LCC to the private sector expertise of a company which may be in the tourism industry and in addition bring in private sector financing and investment.

SOLUTION TWO

s/n	Question
2(a)	(i) Explain Budget Credibility and why realistic budgets are a prerequisite of effective budget execution. Programmes and activities, though with strategic link to output regular monitoring of achievements has not been achieved. The annual budget has lacked credibility due to large variances between initial appropriation and actual expenditure. Limited time provided to MPAS to prepare budgets before presentation to National Parliament. (ii) Explain the issues Ministries, Provinces and Agencies face with spending commitments under the framework Entities may receive funds to cover expenditure regardless of initially appropriated limits so will overspend or spend in areas not envisioned in their budget settlement Entities may not receive their appropriated budget or may not receive it until the end of the financial year. Issues of Ministries entering into commitments outside the Financial Management system. The building up of large arrears creating consequences for cash availability in future periods. Cash balances outside the Treasury Single Account reducing the effectiveness of Treasury reforms.
2(b)	Explain the financial reporting and External Audit Scrutiny process in Zambia. Financial Statements and budget reports produced by Ministries are subject to external audit scrutiny by the Auditors General. According to the Constitution, these statements are audited annually. The report of the Auditor General is submitted to National Assembly, where in depth hearings by the Public Accounts Committee are held. This culminates in production of Treasury Minutes.

SOLUTION THREE

s/n	Question
3	(a) Prepare a paper explaining the benefits the PEFA framework can bring to a country. Assessment of Public Financial Management (PFM) Performance: The PEFA framework provides a standardized methodology for assessing the performance of a country's public financial management system. By conducting PEFA assessments, countries can identify strengths and weaknesses in their PFM systems, enabling them to prioritize reforms and improve accountability and transparency. Basis for Reform Planning and Prioritization: PEFA assessments serve as a diagnostic tool for governments, helping them identify areas for improvement in their PFM systems. Based on the findings of the assessment, countries can develop action plans and prioritize reforms to address deficiencies and strengthen financial management practices. Monitoring and Evaluation of Reform Progress: The PEFA framework allows countries to monitor and evaluate the progress of PFM reforms over time. By conducting periodic PEFA assessments, governments can track improvements in PFM performance, measure the effectiveness of reform initiatives, and adjust strategies as needed to achieve desired outcomes. Enhanced Donor Coordination and Support: PEFA assessments provide a common language and set of benchmarks for donors, governments, and other stakeholders involved in supporting PFM reforms. By aligning donor assistance with the findings of PEFA assessments, countries can ensure that reform efforts are coordinated, targeted, and effectively implemented. Promotion of Transparency and Accountability: The PEFA framework promotes transparency and accountability in public financial management by providing a systematic approach for assessing the integrity, reliability, and timeliness of fiscal information. By enhancing the credibility of financial reporting, PEFA assessments contribute to greater trust and confidence in government institutions. Capacity Building and Institutional Strengthening: Through the process of conducting PEFA assessments and implementing reforms, countries can build the capacity of government institutions and officials involved in financial management. By strengthening institutional capacity, countries can improve their ability to manage public resources efficiently and effectively. International Benchmarking and Comparison: PEFA assessments allow countries to benchmark their PFM performance against international standards and best practices. By comparing

	performance indicators with peer countries, governments can identify areas of relative strength and weakness, learn from successful experiences, and adopt innovative approaches to PFM reform.
	(b) Information for PEFA assessment is sourced from various official document such as: · Legislation · Government policy papers · Budget documents · Reports and statistics · Recent surveys · Analytical work at national, regional or international levels · Interview of key stakeholders

SOLUTION FOUR

(a)

(i)Maximax Criterion (Risk-Seeking):

Identify the highest outcome for each project.

Road Connect: 350

Urban Revamp: 330

Green Power: 310

Result: Road Connect has the highest potential (350).

Conclusion: A risk-seeking investor would choose Project Road Connect.

(ii) Minimax (Maximin) Criterion (Risk-Averse):

Identify the worst-case (minimum) outcome for each project.

Road Connect: 180

Urban Revamp: 200

Green Power: 220

Result: Green Power's worst-case is the best (220).

Conclusion: A risk-averse investor would select Project Green Power.

To incorporate risk-neutral investors in the consultation process, additional information would be required beyond the basic decision criteria already used. Risk-neutral investors focus on expected values rather than extreme outcomes. The following key elements would be needed:

(b)

(1). Expected Value Calculation (Probability Data)

Risk-neutral investors prefer decisions based on the expected monetary value (EMV) of each project.

To calculate EMV, the probability of each economic scenario (High, Moderate, Low Growth) occurring must be known.

The formula: EMV = P(High) x v(High) + P(M) X V(M) + P(L) X V(L)

Without probability estimates, risk-neutral decisions cannot be made effectively.

(2). Macroeconomic Forecasts

Government or independent forecasts on Zambia's future economic growth, inflation, and foreign direct investment trends would help estimate the likelihood of each economic scenario.

This would help risk-neutral investors determine which project has the highest probable financial return.

(3). Cost-Benefit Analysis

A risk-neutral investor would require a more detailed financial assessment, including the total cost of implementation for each project.

Net Present Value (NPV) or Cost-Benefit Ratios could be used to compare long-term financial sustainability.

(4). Funding Sources and Constraints

The availability of financing (government funding, donor support, public-private partnerships) would affect project feasibility.

If a project has high expected returns but requires excessive borrowing, it may not be viable for public sector investment.

(5). Project Lifespan and Maintenance Costs

Some projects may generate high initial savings but require costly long-term maintenance.

Risk-neutral investors would prefer an investment with steady expected returns over time rather than short-term gains.

Conclusion:

To properly integrate risk-neutral investors, the government would need probability estimates, economic forecasts, cost-benefit analysis, funding constraints, and long-term project viability assessments. These factors would help them determine which project maximizes expected value, ensuring a balanced and data-driven decision.

(c)

Minimax Regret Analysis:

Step 1: Determine the maximum outcome in each scenario:

High Growth: 350 (Road Connect)

Moderate Growth: 300 (Urban Revamp)

Low Growth: 220 (Green Power)

Step 2: Construct the regret table (Regret = Maximum outcome – Project outcome):

Project	High Growth	Moderate Growth	Low Growth	Maximum Regret	MARKS
Road Connect	350-350=0	300-260=40	220-180=40	40	2
Urban Revamp	350-330=20	300-300=0	220-200=20	20	2
Green Power	350-310=40	300-280=20	220-220=0	40	2
TOTAL					6

Result: Urban Revamp has the smallest maximum regret (20)

Conclusion: Based on minimax regret, Project Urban Revamp is the best choice.

(d) Advice/ recommendation

Maximax recommends Road Connect for its highest possible benefit (350), suiting risk-seeking preferences.

Minimax suggests Green Power, as its worst-case outcome (220) is most favorable for risk-averse investors.

Minimax Regret points to Urban Revamp, which minimizes the potential regret (20) and offers a balanced option.

Recommendation:

Considering the need to balance risk and opportunity in public sector financial management, Project Urban Revamp is advised as it minimizes regret while offering moderate benefits across all scenarios, addressing diverse investor risk attitudes.

SOLUTION FIVE

(a) NPV

Net cash flows K25m-K8m = K17m

Year		Cash flows Km	DF@12%	PV (Km)
	Capital expenditure	(80)	1	(80)
1-10	Net cash flows	17	5.65	96.05
10	Residual value	20	0.322	6.44
	NPV			22.49

(b) Implications Of Increased Private Funding

Current Funding Mix:

Government: 40% of K80 million = K32 million

Private Investor: 60% of K80 million = K48 million

If the Government reduces its commitment by 40%:

The government now provides only 60% of its original K32 million:

New Government Contribution=0.6×32=K19.2 million

Shortfall from Government:

$32-19.2=K12.8$million

Implication: The private investor must now cover this additional K12.8 million, increasing their contribution from K48 million to:

$48+12.8=K60.8$million

Financial Implications:

Increased Risk & Cost for the Private Investor:

The higher funding burden means the investor is exposed to more risk. They may demand a higher return (or risk premium) to compensate.

Potential Impact on Overall Project Cost:

A shift in the funding mix could result in a higher weighted cost of capital for the project if private funds are more expensive than government grants.

Contractual and Negotiation Issues:

The change may require renegotiation of terms (e.g., user fee structures, risk-sharing arrangements) and could affect the project's perceived creditworthiness.

NPV Consideration:

While the NPV calculated in part (a) is based on cash flows and does not directly change with the funding mix, the cost of financing (if re-evaluated) might require using a higher discount rate in future analyses, potentially lowering the NPV.

(c) Sensitivity Analysis

(i) Revenue drops to 70%

(1) Lower revenue K25 X 0.7 = K17.5 million per year.

Net cash flow = K17.5m – K8M=K9.5

PV = 9.5 X 5.65 = K53.68

NPV = K53.68+K6.44- K80= (K19.88m) negative

Interpretation: A 70% revenue realization turns the project into a loss (negative NPV).

(ii) Increase in operating costs.

K8m x 1.3 = K10.4m

Net cash flow = K25 – k10.4 = K14.6m

PV annuity =14.6×5.65=K82.59 million

Total PV=82.59+6.44=K89.03 million

NPV =89.03−80=K9.03 million

Interpretation: A 30% increase in operating costs significantly reduces the NPV—from about K22.5 million to roughly K9.0 million—but the project still remains positive.

(d) Risk Mitigation and Recommendation

Mitigation Strategies:

(1) Revenue Shortfall Risk:

Market Analysis & Demand Assurance: Conduct robust market research and possibly secure long-term contracts.

Flexible Pricing: Introduce pricing strategies that can stimulate demand if user adoption is low.

(2) Operating Cost Escalation:

Fixed-Price Contracts: Where possible, negotiate fixed-price or cost-capped contracts with suppliers and service providers.

Contingency Funds: Build an operating cost contingency into the project budget.

(3) Funding Delays:

Clear Timelines & Penalties: Include strict contractual timelines and penalties for delays from the private investor.

Alternative Funding Options: Identify backup sources of finance to cover any delays.

(4) Government Withdrawal (40% probability):

Contractual Guarantees: Secure firm, legally binding commitments from the government. Consider including clauses that trigger alternative funding arrangements or risk-sharing measures.

Rebalancing Risk: Re-negotiate the terms of the PPP to share risk more equitably between the public and private sectors.

Recommendation:

Proceed with Caution:

Under base-case assumptions, the project shows a positive NPV (approximately K22.5 million), suggesting financial viability.

However:

Sensitivity analysis reveals that the project is vulnerable—especially to a drop in revenue (which could turn the NPV negative) and to increased operating costs (which substantially reduce the profit margin).

Final Advice:

ZWSA management should proceed with the project only if they can implement robust risk mitigation measures. In particular, they must secure reliable revenue streams, lock in cost controls, and obtain firm funding commitments (or risk-sharing mechanisms) to cushion the impact of a potential 40% reduction in government funding. Without these measures, the project’s financial and operational risks may outweigh its benefits.

END OF SUGGESTED SOLUTIONS