CA ZAMBIA PROGRAMME EXAMINATIONS

CA CERTIFICATE IN ACCOUNTANCY

CA 1.1: FINANCIAL ACCOUNTING

MONDAY 8 SEPTEMBER 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 is an asset?

A. Inventory.

B. Payables.

C. Loan.

D. Accrued Expense.

(2 marks)

1.2 Which one of the following assumptions listed below are included in IAS 1?

A. Objectivity.

B. Going Concern.

C. Business Entity.

D. Money Measurement.

(2 marks)

1.3 The following information was prepared after comparing the bank statement and the firm's cash book:

	K
Deposits not yet credited	620
Bank charges	85
Dishonored cheques	235
Unpresented cheques	940
Direct Debit – DSTV Subscription	470

If the bank statement had a sound balance of K12,575 as at 31 December 2024; what should be the correct updated cash book balance?

A. K 13,900

B. K 12,255

C. K 12,725

D. K 12,490

(2 marks)

1.4 Which one of the following would be recognized as a Financing Activity in the Statement of Cash flow as per IAS 7?

A. Profit on disposal of a non-current asset.

B. Purchase of an intangible asset.

C. A loan repayment.

D. Amortization of development costs.

(2 marks)

1.5 A transaction was credited to the correct ledger account and debited incorrectly to the repairs and renewals account instead of to the plant and machinery account. What type of error was this?

A. Omission.

B. Commission.

C. Principle.

D. Original entry.

(2 marks)

1.6 On 1 January, 2024, Happy Social Club's subscriptions in arrears amounted to K700, and subscriptions prepaid were K1,500; while at 31 December 2024, subscriptions in arrears were K1,200 and subscriptions paid in advance were K3,200. In 2024, cash received as subscriptions from members was K14,200.

From the information provided above, what is the subscription income for the year ended 31 December 2024 in respect of Happy Social Club?

A. K13,000

B. K14,200

C. K11,400

D. K17,000

(2 marks)

1.7 Donas Kayemba, a sole trader, prepared his draft end of year accounts but later realized that he did not adjust for a prepayment of K840 and an accrual of K320.

How will Donas Kayemba's profit and net assets be affected by adjusting for the above?

Profit for the year shall:	***Net assets shall:***
A. Increase by K1,160	Reduce by K1,160
B. Increase by K520	Increase by K520
C. Reduce by K520	Increase by K520
D. Reduce by K1,160	Reduce by K520

(2 marks)

1.8 Which one of the following is the correct treatment of the wages for the Barman when preparing the income and expenditure of a club.

A. Deduct from a separately calculated Bar trading profit.

B. Add to a separately calculated Bar Trading profit.

C. Deduct from proceeds of a competition.

D. Add to proceeds from a competition.

(2 marks)

1.9 Which one of the following best describes what Accountants use a Journal for?

A. To correct Errors.

B. To correct Errors and post usual transactions.

C. To correct Errors and clear suspense account.

D. To make adjustments to the double entry.

(2 marks)

1.10 D, L and G are in partnership sharing profits and losses in the ratio of 3:2:1 respectively. For the year ended 31 December 2024, the partnership profit was K90,000. What is L's share of the profits?

A. K30,000.

B. K15,000.

C. K36,000.

D. K45,000.

(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)

Mululu Ltd is an electrical fittings' supplier who is planning to expand his business to other towns. Its management has approached its bankers for additional finance. As one of the conditions for the financing, the bank has asked Mululu Ltd for the statement of cash flows besides the statement of profit or loss and statement of financial position.
Below are draft financial statements for Mululu Ltd.

Statement of profit and loss and other comprehensive income for the year ended 31 March 2025.

	K'000
Sales	2,324
Cost of sales	(1,732)
Gross profit	592
Distribution costs	(94)
Administrative expenses	(206)
Profit from operations	292
Interest receivable	158
Finance costs	(110)
Profit before tax	340
Income tax expense	(48)
Profit for the year	292
Other comprehensive income:	
Gain on revaluation	502
Total comprehensive income	794

Mululu's Statements of financial position as at 31 March:

	2025 K'000	2024 K'000
Non-current assets:		
Property, plant and Equipment	2,184	1,336
Current assets:		
Inventory	492	256
Trade and other receivables	920	746
Cash and cash equivalents	1,054	716
Total current assets	2,466	1,718
Total assets	**4,650**	**3,054**
Equity and liabilities:		
Equity:		
K0.40 Equity shares	58	48
Share premium	894	754
Revaluation surplus	502	-
Retained earnings	232	52
	1,686	854
Non-current liabilities:		
Loan notes	1,510	1,110
Current liabilities:		
Trade and other payables	488	622
Bank overdraft	874	414
Taxation payable	92	54
Total current liabilities	1,454	1,090
Total equity and liabilities	**4,650**	**3,054**

Additional information:

(1) Mululu Ltd charged depreciation on property, plant and equipment of K44,000. This is included in cost of sales.

(2) During the year ended 31 March 2025, Mululu Ltd, in its quest to raise more finance for business expansion, disposed of some item of property, plant and equipment. The property cost K2.928 million and had a carrying amount of K848,000 for K500,000.

(3) During the year ended 31 March 2025, Mululu Ltd paid dividends of K112,000 to its equity holders.

(4) Mululu Ltd issued 25,000 shares at a premium of K5.60 per share. The shares had a nominal price of K0.40. each.

Required:

(a) Prepare Mululu Ltd's statement of cash flows for the year ended 31 March 2025. (18 marks)

(b) Explain any two (2) benefits of preparing a statement of cash flows. (2 marks)

[Total: 20 Marks]

QUESTION THREE

(a) (i) Explain two (2) purposes of control accounts. (2 marks)

(ii) State and explain four (4) errors that would not affect the balancing of the trial balance. (4 marks)

(b) The trial balance of Trade Xpreso Ltd had an excess of credit over debit of K12,500. A suspense account had been opened to balance the accounts. The following transactions were later discovered:

(1) Sales of K4,000 had been omitted from sales records (i.e. from the day book).

(2) Purchase of raw materials of K4,005 was partially entered in the purchase account as K4,500.

(3) Interest paid of K6,000 and Interest received of K9,000 had both been separately entered on the wrong side of the trial balance.

(4) The receivable control account balance of K224,387 had been included in the trial balance as K242,387.

(5) The balance on the current account with the Proprietor's brother had been omitted from the trial balance. This item, together with effects of the errors in (i) to (iv) above when corrected will clear the suspense account.

Required:

Open a suspense account and correct the above transactions in it. (4 marks)

(c) Chevening Ltd prepared its October 2025 bank reconciliation for auditors to review. As at 31 October 2025, the ledger balance was K2,450 (Credit) but the bank statement showed that the company had funds amounting to K3,743.

The following are useful information:

(1) The CEO of Chevening Ltd arranged for an amount of K3,000 to be transferred from his personal bank account into the company's account. The bank made the transfer on 31 October 2025, but Chevening Ltd had not made any entry in its books.

(2) A Cheque payable to ZESCO in the sum of K5,600 issued and recorded correctly in the bank statements appeared in Chevening's ledger as K6,500.

(3) The following cheques issued by Chevening Ltd in October 2025 did not appear on the bank statement for that month:

3.1 Cheque # 00123 - K2,000
3.2 Cheque # 00124 - K4,800
3.3 Cheque # 00144 - K5,250

(4) Three cheques received and deposited by Chevening Ltd amounting to K4,800 were not credited by the bank.

(5) Income earned on investment with an advice by the bank of K2,457 was not recorded by the bank until 3 November 2025.

(6) The company arranged for the bank to transfer K500,000 to a supplier in Kawambwa. A charge of 0.5% on this transfer had not been recorded in the books of Chevening Ltd.

Required:

(i) Prepare the bank account in Chevening Ltd nominal ledger including any adjusting entries based on the information above. (4 marks)

(ii) Prepare a reconciliation of the bank statement balance showing the corrected balance on the bank account in Chevening Ltd nominal ledger. (4 marks)

(iii) Describe a bonus issue and a rights issue; clearly stating which one of the two would be favoured by an entity that has plans for expanding its operations.
(2 marks)

[Total: 20 Marks]

QUESTION FOUR

Robert and Nicholas set up a partnership business some years ago and had been trading under the name Robnicho. They agreed to be sharing profits equally. On 1 October 2024 they admitted a new partner, Jacquelyn, and have since been trading as Robnicholyn. The terms of the new Partnership Agreement are that:

(1) Jacquelyn was to introduce capital of K7,500, Robert and Nicholas would each introduce additional capital of K2,000.

(2) Interest is to be charged only on capital at the rate of 10% (All amounts must be rounded off to the nearest whole number).

(3) Jacquelyn is entitled to an annual salary of K4,800.

(4) The new profit sharing ratio is 5:3:2

(5) On admission of the new partner, goodwill was valued at K6,000 but would not be retained in the books of Robnicholyn.

The trial balance of Robnicholyn as at 31 December 2024:

	K 000	K 000
Capital account - Robert		8,000
Capital account - Nicholas		6,000
Current account - Robert		2,000
Current account - Nicholas		1,800
12% Loan notes		2,000
Land and buildings	14,000	
Plant and machinery at cost	8,000	
Motor vehicles	2,000	
Office equipment	7,250	
Inventory	2,640	
Suspense		13,000
Drawings - Robert (on 1 April 2024)	1,400	
Drawings - Nicholas (on 1 July 2024)	1,600	
Net profit (before adjustments and appropriations)		12,000
Trade receivables	3,240	
Trade payables		4,250
Bank	8,920	
	49,050	**49,050**

Additional Information

1. On admission of the new partner, assets and liabilities were revalued as follows:

   1.1 Land and buildings, 17,500
   1.2 Plant and machinery at cost, 6,000
   1.3 Motor vehicles, 1,700
   1.4 All other assets were at their recoverable amounts.

2. Inventory on 31 December 2024 included K520 for an item that is obsolete and should be written off.

3. The amount in the suspense account represents the discount received of K1,500 that was not accounted for plus the cash contributed by all partners on admission of Jacquelyn.

4. Profit is deemed to accrue evenly throughout the year.

Required:

(a) The revaluation account for Robnicholyn. (1½ marks)

(b) The adjusted net profit. (1½ marks)

(c) The appropriation account. (8 marks)

(d) Capital and current accounts for the partners. (9 marks)

[Total: 20 Marks]

QUESTION FIVE

(a) With examples explain three (3) causes of the difference between the cash book balance and the bank statement balance. (6 marks)

(b) Explain two (2) errors that will lead to a suspense account being opened. (4 marks)

(c) Explain two (4) objectives of preparing a trial balance. (4 marks)

(d) Distinguish between trade discount and cash discount. (2 marks)

(e) Where no Partnership Agreement exists, express or implied, Section 24 of the Partnership Act 1890 governs the administration of partnerships. List any four (4) provisions of Section 24 of the Partnership Act 1890 regarding administration of the partnerships. (4 marks)

[Total: 20 Marks]

QUESTION SIX

Musole is a small and medium sized entrepreneur specialized in furniture manufacturing and supply. The following transactions have arisen for Musole for the year ended 31 December 2024.

(a) Musole had an opening accrual for electricity amounting to K600,000 on 1 January 2024. During the year ended 31 December 2024, she paid for electricity bills totaling K3,060,000. Included in the bills paid was a bill for a quarter to 30 November 2024 amounting to K840,000. (5 marks)

(b) Musole purchased a machine on 1 March 2024 for K120,000. She incurred additional costs for transportation of K13,000 and installation of K20,000. Shortly after she started using the machine, it broke down and the repairs of the machine cost K1,200. Musole charges depreciation at 10% per annum on straight line basis with a full year's charge in the year of acquisition. (5 marks)

(c) At 31 December 2024, Musole is owed a total of K75,500 by her customers. Her receivables allowance brought forward on 1 January 2024 is K12,800. She estimates that her receivables allowance should be equivalent to 10% of amounts due from customers at 31 December 2024. Musole wishes to write off debts of K14,000 in connection with customer balances that have been outstanding beyond the credit period offered to them. (5 marks)

(d) When Musole carried out some physical stock take, she discovered that some inventory that had been bought for K40,000 during the year had been damaged due to humidity in

the warehouse. A closer examination of the inventory showed that it could only be sold at 30% less than the normal selling price of K50,000. (5 marks)

Required:

Calculate and explain the required amounts to go to the statement of profit and loss and statement of financial position for the year ended 31 December 2024.

[Total: 20 Marks]

END OF PAPER

CA 1.1 - FINANCIAL ACCOUNTING

SUGGESTED SOLUTIONS

SOLUTION ONE

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

SOLUTION TWO

(a) **Mululu Ltd's statement of cash flows for the year ended 31 March 2025.**

	K'000	K'000
Cashflows from operating activities:		
Profit before tax	340	
Adjust for: depreciation expense	44	
Loss on disposal of PPE (w1)	348	
Finance cost	110	
Interest receivable	(158)	
	684	
Increase in inventory (492-256)	(236)	
Increase in trade and other receivables (920-746)	(174)	
Decrease in trade payables (488-622)	(134)	
Cash generated from operations	140	
Interest paid	(110)	
Tax paid (W3)	(10)	
Net cash inflow from operating activities		20
Cash flows from investing activities:		
Cash paid to acquire PPE (W1)	(1,238)	
Proceeds from sale of PPE	500	
Interest received	158	
Net cash on investing activities		(580)
Cash flows from financing activities:		
Proceeds from the issue of shares (58+894-48-754)	150	
Loans received (1,510-1,110)	400	
Dividends paid	(112)	
Net cash inflow from financing activities		438
Net decrease in cash and cash equivalents in the period		(122)
Cash and cash equivalents at start (716-414)		302
Cash and cash equivalents at end (1,054-874)		**180**

WORKINGS

1. Cash paid to acquire PPE

PPE account @ carrying amount

	K'000		K'000
Balance b/f	1,336	Disposal (CA)	848
Revaluation surplus	502	Depreciation expense	44
Bank (bal fig)	1,238	Balance c/f	2,184
	3,076		3,076

Profit or loss on disposal:

	K'000
Carrying amount	848
Proceed	500
loss on disposal	348

2. Cash and cash equivalents:

	2025	2024

	K'000	K'000
Cash and cash equivalents	1,054	716
Bank overdraft	(874)	(414)
Total cash and cash equivalents	180	302

Decrease in cash and cash equivalents 122 (302-180)

3. Taxation paid:

	K'000
Taxation b/f	54
Taxation in profit or loss	48
	102
Less taxation c/f	92
Tax paid	10

(b)

Any two benefits of preparing a statement of cash flows

(i) Enables assessment of a business' ability to generate cash, which is a critical ingredient for a business' survival. Arguably, cash is regarded as an essential catalyst of a business' operations.

(ii) A cash flow statement is more comprehensive in bringing-out reported cash related activities than income statement which is often prepared based on accounting conventions and concepts such as accrual.

(iii) Cash flow statements better measure a business' ability to meet its obligations than an income statement.

(iv) An entity's ability to reward stockholders or remunerate its employees competitively is better assessed by a company's health statement of cash flows.

SOLUTION THREE

(a)

(i) Purposes of control accounts

- Used to locate/detect errors. This happens when control accounts do not agree with ledger accounts and hence control accounts facilitate for investigations.
- Used to provide receivables and payables balances for the preparation of final accounts.
- Provide a platform for fraud prevention as segregation of duties is a core feature of a system of control accounts that enhances checks and balances to be carried out by each individual on another's work.

(ii)

- **Error of Complete Omission** - Failing to record a transaction- Once a transaction is omitted (i.e. both debit and credit), it would not affect balancing of the trial balance
- **Compensating errors:** Errors committed which are equal and opposite to one another would, in effect, not affect balancing of the trial balance.
- **Error of Commission:** Entry recorded in the wrong accounts. E.g. Electricity expenses recorded as telephone expenses. This would not affect the trial balance.
- **Error of Principle:** Entry in the wrong class of accounts. E.g. Revenue expenditure treated as capital expenditure.

(b) **Suspense Account**

	DR	**CR**
	K	**K**
Difference in books	12,500	
Interest paid	12,000	
Interest received		18,000
Receivables overstated		18,000
Purchase over casted		495
Current Account – brother (Bal. figure)	11,995	-
	36,495	**36,495**

(c)

(i) **Bank Account in CHEVENING Ltd nominal ledger**	**K**
Balance b/f	**(2,450)**
Transfer charges (0.5%*500000)	**(2,500)**
Transfer from CEO's account	**3,000**
Electricity Overstated (6,500 - 5,600)	**900**
Balance c/f	**(1,050)**

(ii) **CHEVENING Ltd's Bank Reconciliation statement** **K**

Balance per ledger		(1,050)
Add unpresented cheques		
#123	2,000	
#124	4,800	
#144	5,250	12,050
		11,000
Less:		
Uncredited cheques	4,800	
Interest not booked	2,457	(7,257)
Balance per bank statement		**3,743**

(iii) ***Description of a bonus issue and rights issues and ideal issue for expansionary purposes***

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 prorata 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.

SOLUTION FOUR

Robnicholyn Partnership

(a) **Revaluation Account:**

Balance at year start		
Land and Buildings –surplus		3,500
Plant and Machinery -deficit	2,000	
Motor Vehicles -deficit	300	
Valuation at year end		(2,300)
Revaluation Surplus		1,200

(b) **Adjusted net profit for the year:**

Balance at year end per draft accounts		12,000
Add: Discount Received		1,500
Less: Inventory write off (obsolete)		(520)
Adjusted net profit		12,980

(c) **Appropriation Account for 9 months to 30 September 2024:**

Profits 12,980 x 9/12		9,735
Interest on Capital:		
Robert 8,000x 10% x 9/12	600	
Nicholas 6000 x 10% x 9/12	450	
		(1,050)
		8,685
Share of Profits:		
Robert 8,685 x 1/2	4,343	
Nicholas 8,685 x 1/2	4,342	
Valuation at year end		(8,685)

Appropriation Account for 3 months to 31 December 2024:

Profits 12,980 x 3/12		3,245
Interest on Capital:		
Robert 10,000x 10% x 3/12	250	
Nicholas 8,000x 10% x 3/12	200	
Jacquelyn 7,500 x 10% x 3/12	188	
Salary: Jacquelyn 4,800 x 3/12	1,200	
		(1,838)
		1,407
Share of Profits:		

Robert 1,407 x 5/10	704	
Nicholas 1,407 x 3/10	422	
Jacquelyn 1,407 x 2/10	281	
Valuation at year end		(1,407)

(c) **Capital Accounts:**

	Robert K	**Nicholas K**	**Jacquelyn K**
Opening Balances	8,000	6,000	-
Credit Entries			
New Capital -Bank	2,000	2,000	7,500
Goodwill introduction	3,000	3,000	-
Revaluation surplus	600	600	-
Debit Entries			
Goodwill write-off	(3,000)	(1,800)	
Salary: Jacquelyn (1,200)			
Closing balances	10,600	9,800	6,300

Current Accounts	**Robert K**	**Nicholas K**	**Jacquelyn K**
Opening Balances	2,000	1,800	-
Credit Entries			
Interest on Capital -9 months	600	450	-
Interest on Capital -3 months	250	200	188
Salary -Jacquelyn			1,200
Share of Profits -9 months	4,343	4,342	-
Share of Profits -3 months	704	422	281
Debit Entries			
Drawings	(1,400)	(1,600)	-
Closing balances	6,497	5,614	1,669

SOLUTION FIVE

(a) **Three reasons for the bank statement and cash book variance**

Timing differences

For example, unpresented amounts where a cheque paid to a supplier posted to the cash book has not yet been deposited by the supplier with their bank.

Updating items

Transactions recorded by the bank not recorded or captured in the cash book for example bank charges, standing orders which could only be determined after reviewing the bank statement

Errors made in the cash book or bank statement

Errors of transposition in the cash book for instance a misstatement in a supplier or customer cheque. Bank errors for example amounts could have been wrongly credited or deducted from the bank balance

(b) **Two errors leading to opening and/or creation of a Suspense account:**

Error of single entry; where only one record was made or only one account is updated.

Transposition error; in which figures are exchanged or transposed, e.g.an amount of 161 written as 116

Double entry; where either a debit or credit; or both accounts are debited or credited

(c) **Any four (4) objectives of preparing a trial balance**

(i) To check the **arithmetical accuracy**. The trial balance may confirm the correctness of postings in ledger accounts as well as the accuracy of the ledger accounts' balances among others.
(ii) To help in the **preparation of financial statements**. The trial balance provides ledger account balances for various items that go in the preparation of the statement of profit or loss and the statement of financial position.
(iii) Helping in **locating errors**. The trial balance must always balance because of the double entry concept. If it does not balance, that may be an indication of errors in posting transactions to respective ledger accounts and/or in extracting balances from ledger accounts among others. However, it is worth noting that not all errors affect the agreement of the trial balance.
(iv) Helps in **comparison**. It helps management to make informed decisions by comparing ledger account balances from one period to the other.
(v) Helps in **making adjustments**. The trial balance may help the preparer of financial statements to identify items that require adjusting.

(d) **Distinguishing between trade discount and cash discount**

Trade discount is an allowance given by the seller to the buyer due to bulky purchase or as a result of some good relationship. Trade discount does not appear anywhere in the books of accounts and financial statements.

On the other hand, **cash discount/early settlement/prompt discount** is an allowance given to a customer if full remittance of funds to clear the account is made before the due date of payment. Cash discount appears in the financial statements.

(e) **Any four (4) rules of Section 24 of the Partnership Act 1890 regarding administration of partnerships**

- Profits and losses are to be shared equally.
- There is to be no interest allowed on capital.
- No interest is to be charged on drawings.
- Salaries to partners are not allowed.
- Partner who put a sum of money in excess of the agreed capital to be subscribed is entitled to interest at the rate of 5% per annum on such an advance

SOLUTION SIX

(a) Musole had an accrual of K600,000 at the beginning of the year to be subtracted from amount paid during the year and had accrual of one month equivalent, at the end of the year (840,000*1/3) amounting to K280,000 to be added to the total amount paid to derive amount to go to statement of profit or loss as follows:

Accrual at the end	280,000
Plus, paid during the year	3,060,000
Less accrual at the beginning	(600,000)
Charge to profit or loss	2,740,000

Alternatively, allow account approach to getting the answer.
The amount to go to statement of financial position as a current liability (accrued expense) will be accrual at the end of the year of K280,000.

(b) The initial cost will comprise purchase cost (K120,000), transportation cost (K13,000) and installation cost (K20,000) totaling K153,000. These qualify as capital expenditure.

- The repairs cost of K1,200 will not be part of the initial cost of the machine as it is revenue expenditure.
- Hence K1,200 will be expensed in profit or loss.
- The total cost of K153, 000 will be depreciated at 10% giving full depreciation expense to be charged to profit of loss of K15,300 (10%*K153,000).
- The carrying amount of an asset to go to statement of financial position will be K137,700 (K153,000-K15,300)

(c) The total to go be reported in the profit or loss will be K7,350 W1 (14,000-6,650). The total receivable balance to the statement of financial position will be K55,350 (61,500-6,150)

	K'
W1 Receivables at year end	75,500
Less irrecoverable debt	(14,000)
Net receivables at year end	61,500
Allowance at year end (10%*61,500)	(6,150)
Less allowance b/f	(12,800)
Decrease in allowance in the period	6,650

(d) IAS 2 Inventories requires inventories to be valued at the lower of cost and net realizable value. The item of inventory in question with a cost of K40,000 had a net realizable value (NRV) of K35,000, lower than cost. This means cost of sales was understated due to high closing inventory and need to be increased and hence profit reduced by the difference of K5,000. Therefore, profit or loss gets a charge of K5,000. Inventory in the statement of financial position is to be recognized at K35,000.

END OF SUGGESTED SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA CERTIFICATE IN ACCOUNTANCY

CA 1.2 BUSINESS STATISTICS

WEDNESDAY 10 SEPTEMBER 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 Which of the following measures is not dependent on the exact value of every measurement?

A. Range.
B. Variance.
C. Standard deviation.
D. Mean deviation.

(2 marks)

1.2 If the sales of company X are as listed below, which is the median of the sample

6, 6, 12, 10, 9, 6, 9.

A. 6
B. 9
C. 10
D. 12

(2 marks)

1.3 There are 4 blue socks, 6 brown socks and 5 white socks in a drawer. If two (2) socks are picked up randomly, what is the probability that the selected socks are the same color?

A. 1
B. 0
C. $\frac{3}{4}$
D. $\frac{62}{210}$

(2 marks)

1.4 The Disaster Management and Mitigation Unit (DMMU) formulates a regression model $y = -100 + 170.4x$ outlining the cost of disaster evacuation (y) and length (km) of place from nearest city (x). Calculate the cost if the length of place with disaster from a nearest city is 2000km.

A. K340,800
B. K340,900
C. K340,700
D. K340,000

(2 marks)

1.5 A regression analysis between sales (in K '000) and price (in Kwachas) resulted in the following equation.

$$\hat{y} = 25{,}000 - 0.25x$$

Based on the above estimated regression equation, if the price was decreased by 10% the sales would:

A. Increase by 25%
B. Increase by 2.5%
C. Decrease by 0.25%
D. Decrease by 2.5%

(2 marks)

1.6 In a distribution of 10, 20, 30, 40, 50, $\bar{x}$ is 30, the sum of deviations from $\bar{x}$ is:

A. 60
B. 30
C. 0
D. 15

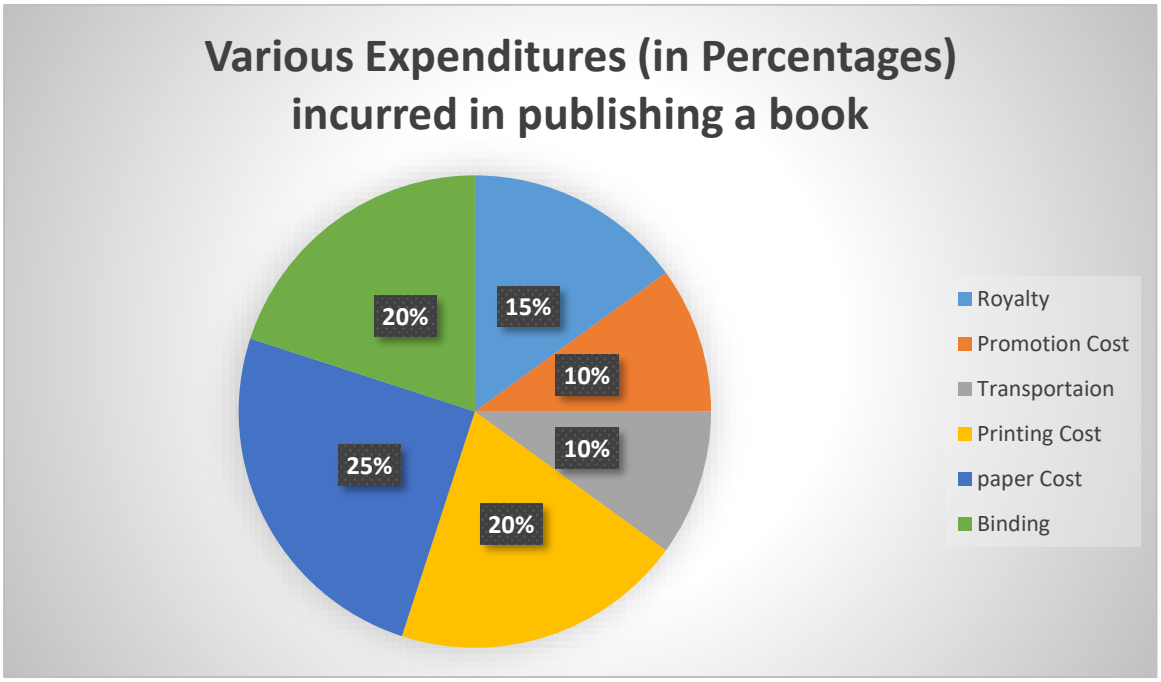
(2 marks)

1.7 Prosperity, recession, and depression in a business is an example of?

A. Irregular trend.
B. Secular trend.
C. cyclical trend.
D. Seasonal trend.

(2 marks)

1.8 The following pie chart shows the percentage distribution of the expenditure incurred in publishing a book. If for a certain quality of books, the publisher has to pay K25,500 as printing cost, then what will be the amount of royalty to be paid for these books?



A. K3,825
B. K19,125
C. K21,675
D. K20,000

(2 marks)

1.9 Two (2) people X and Y apply for a job in a company. The probability of the selection of X is 2/5, and Y is 4/7. What is the probability that both of them get selected?

A. 1/6
B. 27/35
C. 3/35
D. 8/35

(2 marks)

1.10 If the difference between the expectation of square of a random variable $E[X^2]$ and the square of the expectation of the random variable $[E(X)]^2$ is denoted by $V[X]$, then;

A. $V[X] \leq -1$
B. $V[X] = 0$
C. $V[X] \geq 0$
D. $V[X] = -1$

(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 questions (4).

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

(a) The following data represent the number of mobile booths in five (5) Zambian cities.

Name of city	**Number of mobile booths**
Ndola	203
Chipata	80
Mongu	70
Lusaka	290
Solwezi	77

Required:

(i) Draw a bar chart to illustrate this information. (4 marks)

(ii) Draw a pie chart to illustrate this information. (7 marks)

(iii) If a booth is picked at random, what is the probability that it was found in Chipata? (2 marks)

(b) An Electrical Engineer measures the diameter of wires produced by a machine. The wires produced are normally distributed with mean of 5mm and standard deviation of 0.04mm, where measurements are in millimeters.

(i) Find the probability that diameters of wires measures between 4.5mm and 5.4mm. (4 marks)

(ii) What is the probability that the wires diameter will be more than 5.5mm? (3 marks)

[Total: 20 Marks]

QUESTION THREE

A vehicle insurance company investigates the average claims for vehicle maintenance (Y) (in Thousands of kwacha), and the age of the vehicle (X) in years. The results of an analysis of claims of 10 vehicles for the year 2021 was as follows:

Age(years) , X	60	30	15	50	30	30	10	50	20	5
Claims(in kwachas) , Y	395	300	250	350	310	335	240	300	300	190

Required:

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

(b) Find the least squares regression of maintenance cost on age. (11 marks)

(c) Explain the practical meaning of this regression equation. (2 marks)

(d) Calculate the coefficient of correlation r and interpret the result (4 marks)

[Total: 20 Marks]

QUESTION FOUR

(a) The following data represent the sample of cars arriving at a toll gate during 20 intervals of 10 – minutes duration.

27, 27, 59, 25, 23, 23, 16, 34, 20, 28, 22, 19, 17, 21, 35, 25, 28, 31, 32,34.

Required:

Compute the following descriptive statistics.

(i) Mean (2 marks)

(ii) Median (2 marks)

(iii) Range (1 mark)

(iv) Variance (3 marks)

(v) Standard deviation (1 mark)

(b) The accompanying table shows, for 1000 forecasts of earnings per share made by a financial analyst, the numbers of forecasts and outcomes in particular categories (compared with previous year)

Outcome	**Forecast**		
	Improvement	**About the same**	**Worse**
Improvement	205	77	61
About the same	111	158	80
Worse	60	89	159

Required:

(i) Find the probability that if the forecast is for a worse performance in earnings, the worst outcome will result. (2 marks)

(ii) If the forecast is for an improvement in earnings, find the probability that the outcome in an improvement will results. (3 marks)

(iii) Find the probability that if the forecast is an improvement, the outcome in earnings of an improvement will result. (3 marks)

(iv) Find the probability that if the forecast is for an improvement in earnings, that the worse outcome will result. (3 marks)

[Total: 20 Marks]

QUESTION FIVE

(a) According to a survey, 70% of all students at a large university suffer from math anxiety. Two (2) students are randomly selected from this University. Let X denote the number of students in this sample who suffer from math anxiety.

Required:

(i) Develop the probability distribution of X. (4 marks)

(ii) Find the mean value of X. (3 marks)

(iii) Find the standard deviation of X. (4 marks)

(b) The following is the list of various forms of questions asked during a survey for a study on economic status of the Luapula province. Classify the data as discrete or continuous.

Required:

(i) The monthly salary of employees. (1 mark)

(ii) The number of households in the province. (1 mark)

(iii) The age of respondents. (1 mark)

(iv) The number of meals the respondents have per day. (1 mark)

(v) The highest payment received from the CDF allocations to respondents' cooperative. (1 mark)

(c) A group of workers were asked to write down their weekly wage. The wages were as follows:

K550 K400 K260 K320 K500
K450 K460 K480 K510 K490
K505

Compute the interquartile range (4 marks)

[Total: 20 Marks]

QUESTION SIX

(a) The life times of 80 bulbs, to the nearest hour is shown in the table below:

Lifetime (hours)	Number of bulbs
6 – 10	2
11 – 15	10
16 – 20	18
21 – 25	45
26 – 30	5

Required:

(i) Compute the mean lifetime of bulbs (5 marks)

(ii) Compute the median lifetime of bulbs (3 marks)

(iii) Compute the modal lifetime of bulbs (3 marks)

(b) Calculate five (5) yearly moving averages of the number of students studying in a college from the following data:

Year	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Number of students	332	317	357	392	402	405	410	427	405	438

(9 marks)

[Total: 20 Marks]

END OF PAPER

CA 1.2 BUSINESS STATISTICS

SUGGESTED SOLUTIONS

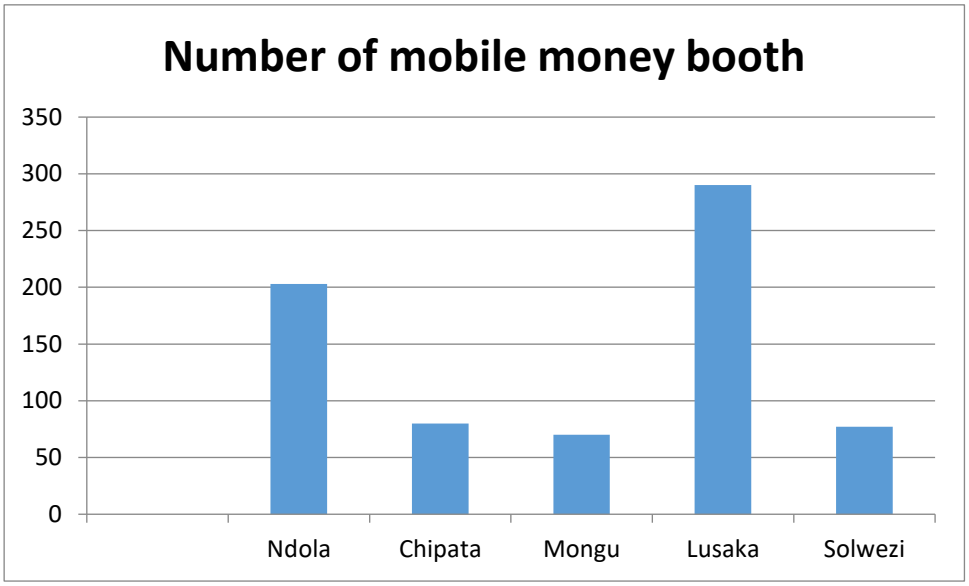
SOLUTION ONE

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

SOLUTION TWO

(a)

(i)



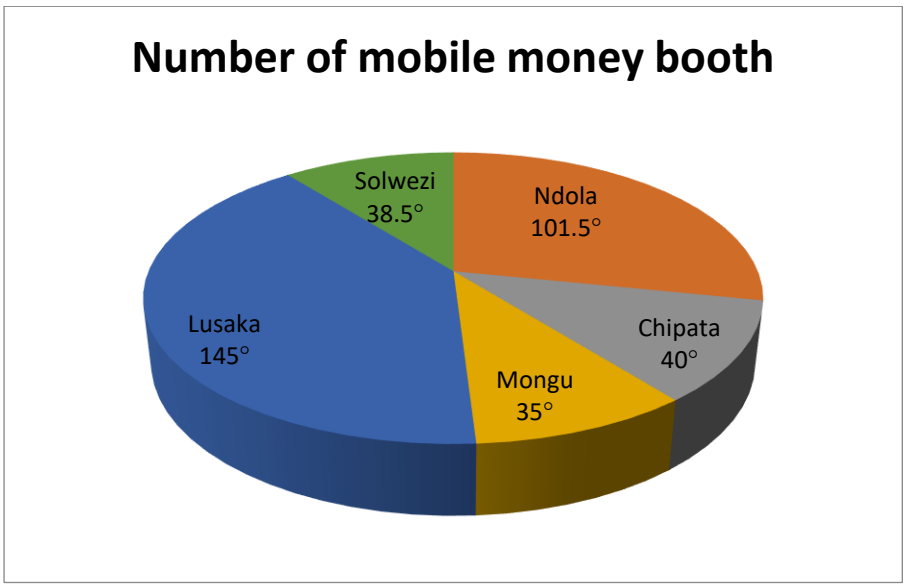
(ii) Ndola: $\rightarrow \frac{203}{720} \times 360^{\circ} = 101.5^{\circ}$

Chipata: $\rightarrow \frac{80}{720} \times 360^{\circ} = 40^{\circ}$

Mongu: $\rightarrow \frac{70}{720} \times 360^{\circ} = 35^{\circ}$

Lusaka: $\rightarrow \frac{290}{720} \times 360^{\circ} = 145^{\circ}$

Solwezi: $\rightarrow \frac{77}{720} \times 360^{\circ} = 38.5^{\circ}$



(iii) **P(chipata)=80/720**

(b) **Normal distribution**

(i) $\boldsymbol{P}(4.5 < X < 5.4) = P\left(Z > \frac{X-\mu}{\sigma}\right)$

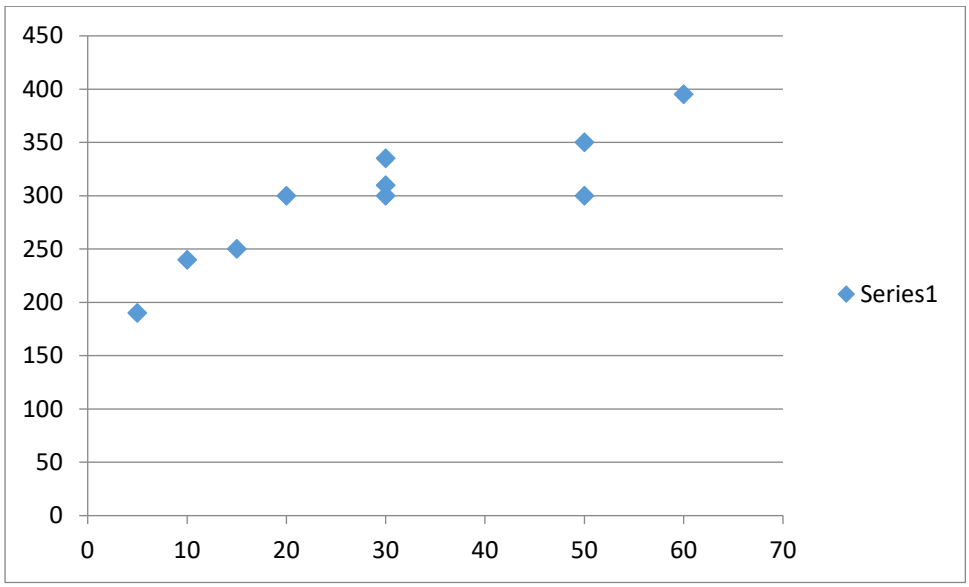
$$= P\left(\frac{4.5-5}{0.4} < Z < \frac{5.4-5}{0.4}\right)$$
$$= P(-1.25 < Z < 1)$$
$$= 1 - (0.1056 + 0.1587$$
$$= 0.7357$$

(ii) $\boldsymbol{P}(X > 5.5) = P\left(Z > \frac{X-\mu}{\sigma}\right)$

$$= P\left(Z > \frac{5.5-5}{0.4}\right)$$
$$= P(Z > 1.25)$$
$$= 0.1056$$

SOLUTION THREE

(a) Let $X = Age$ and $Y = claims(kwacha)$



(b) Let $X = Age$ and $Y = claims(kwacha)$

X	Y	XY	X^2	Y^2
60	395	23700	3600	156025
30	300	9000	900	90000
15	250	3750	225	62500
50	350	17500	2500	122500
30	310	9300	900	96100
30	335	10050	900	112225
10	240	2400	100	57600
50	300	15000	2500	90000
20	300	6000	400	90000
5	190	950	25	36100
TOTALS				
300	**2970**	**97650**	**12050**	**913050**

Therefore,

$$\beta = \frac{n\sum XY - \sum X \sum Y}{n\sum X^2 - \left(\sum X\right)^2} = \frac{10 \times 97{,}650 - 300 \times 2970}{10 \times 12050 - (300)^2} = \frac{85500}{30500} = 2.8$$

And,

$$\alpha = \overline{Y} - \beta\overline{X} = \frac{2970}{10} - 2.8\left(\frac{300}{10}\right) = 297 - 84 = 213$$

Hence, the least –squares regression line is

$$y = \alpha + \beta x = 213 + 2.8x$$

(c) In general, maintenance costs will be related to the age of the vehicle; result the older the vehicle, the greater the monthly insurance claims.

(d).

$$r = \frac{\sum xy - \frac{\sum x \sum y}{n}}{\sqrt{\left(\sum x^2 - \frac{(\sum x)^2}{n}\right)\left(\sum y^2 - \frac{(\sum y)^2}{n}\right)}}$$

$$\frac{97650 - \frac{300 \times 2970}{10}}{\sqrt{\left(12050 - \frac{300^2}{10}\right)\left(913050 - \frac{(2970)^2}{10}\right)}}$$

$$= \frac{8550}{\sqrt{(3050)(30960)}} = \frac{8550}{\sqrt{94428000}} = 0.879$$

$$\boldsymbol{r = 0.879}$$

SOLUTION FOUR

(a) This is ungrouped data. Arrange it in increasing order.

16, 17, 19, 20, 21, 22, 23, 23, 25, 25, 27, 27, 28, 28, 31, 32, 34, 34, 35, 59.

(i) $\vec{x} = \frac{\sum x}{n} = \frac{546}{20} = 27.3$

(ii) $n = 20$, n is even. The position of the median is given by $= \frac{n}{2} = \frac{20}{2} = 10^{\text{th}}$ observation.

Therefore, median is 25.

(iii) The range is the difference between the maximum and minimum values in a data set. $range = 59 - 16 = 43$

(iv) Sample variance is given by the formula $S^2 = \frac{\sum x^2 - \frac{(\sum x)^2}{n}}{n-1} = \frac{16\,568 - \frac{(546)^2}{20}}{19} = \frac{1662.2}{19} = 87.48$

(v) Standard deviation is the square root of the variance and the formula is given by $S = \sqrt{S^2} = \sqrt{87.48} = 9.35$

(b) Construct the following table:

Outcome	forecast			
	Improvement	About the same	Worse	Total
Improvement	205	77	61	343
About the same	111	158	80	349
Worse	60	89	159	308
Total	376	342	300	1 000

(i) We look for the conditional probability of

$$P(outcome\ is\ worse|forecast\ is\ worse) = \frac{P(outcome\ \cap forecast\ worse)}{P(forecast\ worse)} = \frac{159}{300} = 0.53$$

(ii) We look for the conditional probability of

$$P(outcome\ improvement|improvement\ in\ forecast) = \frac{P(outcome\ \cap forecast)}{P(improvement\ forecast)} = \frac{205}{376}$$
$$= 0.5452$$

(iii) We look for the conditional probability of

$$P(forecast\ improvement|improvement\ outcome) = \frac{P(outcome\ \cap forecast\ )}{P(improvement\ outcome)} = \frac{205}{373} = 0.5977$$

(iv) We look for the conditional probability of

$$P(outcome\ is\ worse|improvement\ in\ forecast) = \frac{P(outcome\ worse\ \cap improvement\ forecst)}{P(improvement\ forecast)}$$

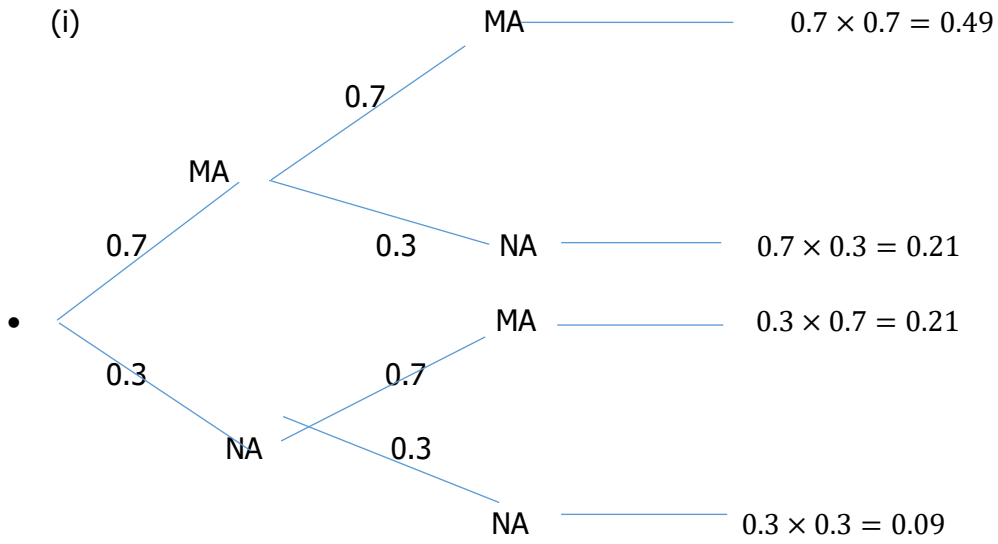
$$= \frac{60}{376} = 0.1596$$

SOLUTION FIVE

(a) Let **MA** be students with Math anxiety and NA be students with No Math Anxiety

Then we have the following possibilities for two selections:

(i)



Let X denote the number of students in this sample who suffer from math anxiety.

Therefore the distribution is:

X	0	1	2
P(X)	0.09	0.42	0.49

(ii)

Mean:

$$\bar{X} = \frac{1}{n}\sum fx = \frac{0 \times 0.09 + 1 \times 0.42 + 2 \times 0.49}{3} = \frac{286}{10} = 0.467$$

(iii)

Standard deviation:

$$\boldsymbol{S} = \sqrt{\frac{\sum x^2 - f\bar{x}^2}{f-1}}$$

$$S = \sqrt{\frac{5 - 3(0.467)^2}{3-1}} = 1.47$$

(b)

(i) Continuous data
(ii) Discrete data
(iii) Continuous data
(iv) Discrete data
(v) Continuous data

(c) Rearranging the scores in numerical order we have

260 320 400 450 460 480 490 500 505 510 550

$$Q_1 = \frac{1}{4}(n+1)^{th} \text{ Value}$$
$$= \frac{1}{4}(11+1)^{th} \text{ Value}$$
$$= 3^{rd} \text{ Value}$$

$$\therefore Q_1 = 400$$

$$Q_3 = \frac{3}{4}(n+1)^{th} \text{ Value}$$
$$= \frac{3}{4}(11+1)^{th} \text{ Value}$$
$$= 9^{th} \text{ Value}$$

$$\therefore Q_3 = 505$$

Therefore,

$$\text{Interquartile Range} = Q_3 - Q_1$$
$$= 505 - 400$$
$$= 105$$

SOLUTION SIX

(a)

Lifetime hours	No. of bulbs, f	Midpoint, x	fx	Cumulative frequency
6 – 10	2	8	16	2
11 – 15	10	13	130	12
16 – 20	18	18	324	30
21 – 25	45	23	1,035	75
26 – 30	5	28	140	80
	$\sum f = 80$		$\sum fx = 1,645$	

(i) $\bar{x} = \dfrac{\sum fx}{\sum f} = \dfrac{1,645}{80} = 20.6$

(ii) Here $\dfrac{n}{2} = \dfrac{80}{2} = 40$

So, $21-25$ is the median class.

Now $\ell = 20.5$

$h = 5$

$cf = 30$

$f = 45$

$$\text{Median} = \ell + \left(\frac{\frac{n}{2} - cf}{f} \right) \times h$$

$$= 20.5 + \left(\frac{\frac{80}{2} - 30}{45} \right) \times 5$$

$$= 20.5 + 1.1$$

$$= 21.6$$

(iii) Here frequency of class interval 21 – 25 is maximum. So, it is the modal class.

Now, $\ell = 20.5$

$f_1 = 45$

$f_0 = 18$

$f_2 = 5$

$h = 5$

$$\text{Mode} = \ell + \left(\frac{f_1 - f_0}{2f_1 - f_0 - f_2} \right) \times h$$

$$= 20.5 + \left(\frac{45 - 18}{2(45) - 18 - 5} \right) \times 5$$

$$= 20.5 + \left(\frac{27}{67} \right) \times 5$$

$$= 20.5 + 2.01$$

$$= 25.51$$

(b)

Year	**No. of Students**	**5-yearly Moving Totals**	**5-yearly Moving Average**
1981	332		
1982	317		
1983	357	1800	$1800/5 = 360.0$
1984	392	1873	$1873/5 = 374.6$
1985	402	1966	$1966/5 = 393.2$
1986	405	2036	$2036/5 = 407.2$
1987	410	2049	$2049/5 = 409.8$
1988	427	2085	$2085/5 = 417.0$
1989	405		
1990	438		

END OF SUGGESTED SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA CERTIFICATE IN ACCOUNTANCY

CA 1.3: BUSINESS ECONOMICS

TUESDAY 9 SEPTEMBER 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.

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 of the following best defines merit goods?

A. Being rival and excludable by nature.
B. Being over-provided in a free market without government intervention.
C. Being non-rival and non-excludable.
D. Providing benefits to society that are not fully provided by the markets.

(2 marks)

1.2 Which of the following describes the main aim of fiscal policy?

A. To control the money supply for positive economic growth in the nation.
B. To manage government spending and taxation to grow the economy.
C. To set interest rates to stabilize the economy and promote the economy.
D. Regulate imports and exports for positive economic growth in the nation.

(2 marks)

1.3 Which of the following would cause the production possibilities curve to shift outward?

A. Resources are fully and efficiently utilized.
B. Technology improves.
C. There is underemployment of resources.
D. Scarcity increases.

(2 marks)

1.4 In the short run, a firm shuts down operations when:

A. Total revenue equals total cost.
B. Marginal revenue equals marginal cost.
C. Price is less than the average variable cost.
D. Fixed costs exceed variable costs.

(2 marks)

1.5 The cross-price elasticity of demand for substitute goods is:

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

(2 marks)

1.6 The GDP deflator is a measure of……

A. Real GDP growth from goods.
B. The impact of inflation on a nation's economy in a year.
C. The price level of all final goods and services in a nation.
D. The difference between nominal and real GDP in a year.

(2 marks)

1.7 Which of the following is true about total and marginal product?

A. Total product is maximized when marginal product equals zero.
B. Marginal product is constant at all levels of input.
C. Average product falls before the total product reaches a maximum.
D. Marginal product becomes negative only when average product is zero.

(2 marks)

1.8 Terms of trade is a key measure of……..

A. Relative prices of exports to imports.
B. Relative prices of imports to exports.
C. Exports minus imports.
D. Exchange rate differences.

(2 marks)

1.9 Which of the following would result from a rise (appreciation) of Zambia's currency?

A. A rise in the volume of exports.
B. A rise in the volume of imports.
C. An improvement in its BoPs.
D. None of the above.

(2 marks)

1.10 Which of the following factors positively impacts the credit multiplier?

A. Full utilization of Government resources.
B. Banks maintaining higher reserves than required.
C. The repeated lending of deposited funds.
D. Tax cuts for households, corporations and firms.

(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

Supply and demand are the two (2) words economists use most often and for good reason. Supply and demand are the forces that make market economies work. They determine the quantity of each good produced and the price at which it is sold. If you want to know how any event or policy will affect the economy, you must think first about how it will affect supply and demand. The theory of demand and supply considers how buyers and sellers behave and how they interact with one another. It shows how supply and demand determine prices in a market economy and how prices, in turn, allocate the economy's scarce resources.

Required:

(a) Define the concept 'market equilibrium' (2 marks)

(b) Consider the following demand and supply equations for the product of an oligopolistic industry:

$Q_D = 25 - 3P$,
$Q_S = 10 + 2P$.

Determine the market equilibrium price and quantity algebraically (4 marks)

(c) Suppose the government regulatory authorities imposed a price floor of this product of P = K4.

(i) Determine the quantity demanded and supplied of this product (4 marks)

(ii) Determine the effect of this legislation on the market (4 marks)

(d) State any three (3) factors that may shift the supply curve of a good to the left.

(6 marks)

[Total: 20 Marks]

QUESTION THREE

Economists use various models to simplify real-world economic interactions. One such model is the **Circular Flow of Income**, which illustrates the movement of goods, services, and money in an economy. It helps explain how economic activities between households and firms generate income and support economic growth.

Required:

(a) Draw a diagram showing the flows of goods, services, resources, and money between firms and households. (4 marks)

(b) Explain how household spending represents income for firms, and vice versa.

(3 marks)

(c) Using the Circular Flow of Income, explain the three (3) methods or approaches used to measure national income in Zambia. (9 marks)

(d) Explain the meaning of the term Gross Domestic Product (GDP) per capita.

(4 marks)

[Total: 20 Marks]

QUESTION FOUR

The primary goal of a private firm is to maximize profits. To achieve this, a company must determine the optimal production level by analyzing costs and revenues. However, the firm's ability to set prices and earn revenue depends on the type of market structure in which it operates. The major market structures include perfect competition, monopoly, oligopoly, and monopolistic competition.

Required:

(a) Outline any three (3) characteristics of a monopoly. (6 marks)

(b) Using graphs, explain the short-run and long-run equilibrium positions of a monopolist.

(10 marks)

(c) Explain why a monopolist may be considered inefficient in resource allocation.

(4 marks)

[Total: 20 Marks]

QUESTION FIVE

International trade allows countries to specialize in producing goods where they have an advantage. The theory of absolute advantage explains how countries benefit from trade by producing goods at a lower cost than their trading partners. However, free trade is often met with opposition due to concerns about job losses, unfair competition, and trade imbalances. A country's balance of trade measures the difference between the value of its exports and imports, affecting its overall economic stability.

Required:

(a) Describe the theory of absolute advantage as a basis for international trade.

(6 marks)

(b) Give any four (4) reasons why some Governments oppose free international trade.

(4 marks)

(c) Outline any three (3) factors that can cause a balance of trade deficit (6 marks)

(d) Explain any two (2) policy measures a Government can implement to reduce a balance of trade deficit. (4 marks)

[Total: 20 Marks]

QUESTION SIX

JKM Limited is a manufacturing company specialised in producing female lightening cream and perfume located in Lusaka's industrial Area. To produce a unit of lightening cream, the company needs to give up 2 units of perfume. Assume the company operates in a perfectly competitive industry with a bottle of cream selling at K40.50. Of late the company has been incurring losses on its operations. Management at the company is interested in understanding cost behaviour so that correct decisions can be made to minimise losses. The company engaged its Cost Accountant to provide information relating to the quantity or number of bottles of lotion produced with the associated total cost as a basis for further cost analysis.

The table below shows the output of creams produced at JMK Limited:

Output per week(units)	**Total costs (TC)**	**Total variable cost(TVC)**	**Marginal cost(MC)**	**Average total cost (ATC)**
0	270			
5	427.5			
10	600.0			
15	787.5			
20	990.0			
25	1207.5			

Required:

(a) Define the term 'opportunity cost.' (2 marks)

(b) Outline any three (3) factors that can cause the production possibility frontier to shift Outward. (6 marks)

(c) Complete the columns for Variable Cost (VC), Marginal Cost (MC), and average total cost (ATC). (9 marks)

(d) The idea behind MR = MC basically comes down to a cost-benefit analysis. Explain the two (2) effects of producing where is MR = MC by the firm. (3 marks)

[Total 20 Marks]

END OF PAPER

CA 1.3 BUSINESS ECONOMIC

SUGGESTED SOLUTIONS

SOLUTION ONE

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

SOLUTION TWO

(a) Market equilibrium exists when the quantity demanded is equal to the quantity supplied.

(b) Equilibrium is established where $Q_D = Q_S$, substituting,
25 -3P = 10 +2P = 15 = 5P = P = 3.
The equilibrium quantity is determined by substituting the equilibrium price into either the demand or supply equation. Using the demand equation $Q_D = 25 – 3(5) = 16$

(c) Price floor:

(i) At a mandated price of P = K4, the quantity demanded and quantity supplied can be determined by substituting this price into the demand and supply equations and solving.

$Q_D = 25 – 3(4) = 25 – 12 = 13$
$Q_S = 10 + 2(4) = 10 + 8 = 18.$

(ii) Since $Q_S > Q_D$, legislation results in a situation of excess supply (surplus) of 5 units.

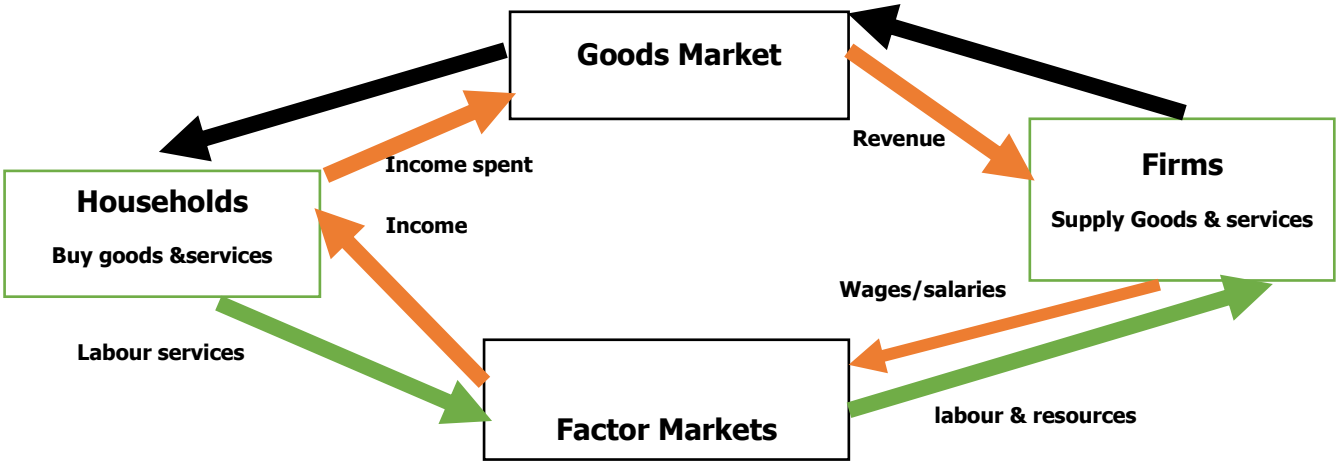
(d) The following are the factors that may shift the supply curve of a good to the left:

- Increase in the costs of production. When the cost of production goes up, it becomes more costly to produce that good for the suppliers
- Bad weather. Bad weather for some products like agricultural products may shift the supply curve of such products to the left
- Reduction in the number of sellers. For example, when the number of small scale farmers growing maize reduces, the supply of maize may reduce too.
- Increase in taxes. This has the same effect as the increase in the cost of production.
- An increase in the price of a substitute good will shift the supply curve of the good to the left. This is because producers will shift resources to the production of the substitute product

SOLUTION THREE

(a) Circular Flow of Income Diagram

- The diagram shows **households and firms** interacting in the **product market** (goods & services) and **factor market** (labour & resources).
- Money flows in one direction (spending and income), while goods/services flow in the opposite direction.



(b) Household Spending as Firm Income and Vice versa

When households **buy goods and services**, firms **earn revenue**. When firms **pay wages** to workers, households **receive income**. This cycle ensures continuous economic activity.

(c) Three Methods of Measuring National Income.

i. **Income Method** – Adds all incomes earned in the economy (wages, profits, rents, etc.).
ii. **Expenditure Method** – Adds all spending on final goods and services (C + I + G + (X - M)).
iii. **Output Method** – Measures the total value of goods and services produced in different industries.

(d) Meaning of GDP Per Capita

- **Gross Domestic Product (GDP) per capita** is the total GDP divided by the population.
- It measures the **average income per person** in an economy, indicating the standard of living.

$$\text{GDP per capita} = \frac{Total\ GDP}{Total\ population}$$

SOLUTION FOUR

(a) Characteristics of a Monopoly

A monopoly is a market structure where a single firm dominates the entire industry, with no close substitutes for its product. The key characteristics of a monopoly include:

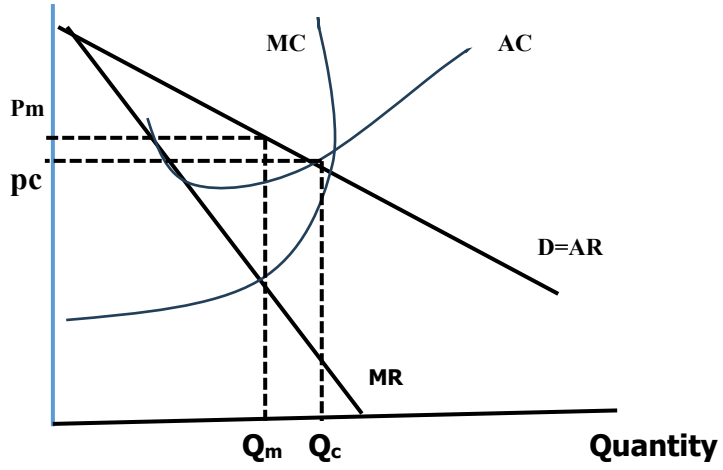
- **Single Seller**: A monopoly exists when one firm is the sole producer of a product or service. The firm is the entire industry, meaning consumers have no alternative suppliers.
- **No Close Substitutes**: The product or service provided by the monopoly has no close substitutes, meaning consumers must buy from the monopolist or go without the product. This gives the firm significant market power to set prices.
- **High Barriers to Entry**: New firms cannot easily enter the market due to legal barriers (e.g., patents, government licenses), high start-up costs (e.g., infrastructure investment), Economies of scale (larger firms produce at lower costs, making it hard for new entrants to compete)
- **Price Maker**: Unlike firms in perfect competition, a monopolist is a price maker, meaning it has the power to set prices rather than take the market price.
- **Profit Maximization at MR = MC**: A monopolist maximizes profits by producing at the output level where Marginal Revenue (MR) = Marginal Cost (MC). The firm can restrict output to keep prices high and maximize revenue.
- **Potential for Supernormal Profits**: Since no competition exists, the firm can earn long-run supernormal (economic) profits. Unlike in competitive markets, where new firms enter and reduce profits, barriers to entry protect monopoly profits.
- **Price Discrimination Ability**: A monopolist can practice price discrimination, charging different prices to different consumers based on willingness to pay (e.g., student discounts, peak vs. off-peak pricing).

(b) Short-Run and Long-Run Equilibrium of a Monopolist

A monopolist maximizes profit by producing at the output level where Marginal Revenue (MR) = Marginal Cost (MC). Unlike a perfectly competitive firm, a monopolist faces a downward-sloping demand curve, meaning it must lower the price to sell more output.

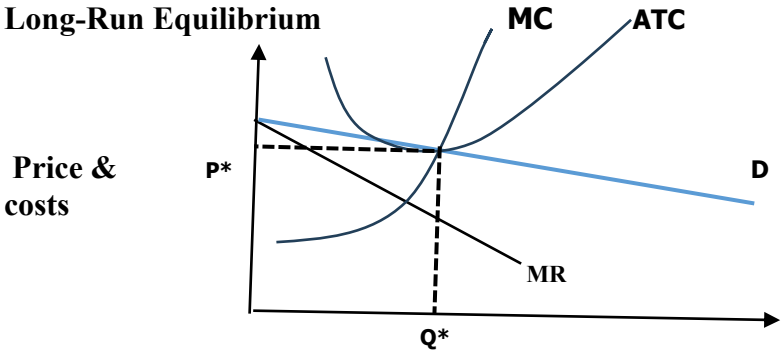
Short-Run Equilibrium

Price & Cost



In the short run, a monopolist can earn supernormal (economic) profits, normal profits, or even losses, depending on demand and cost conditions. The firm produces at the quantity where MR = MC and sets the price based on the demand curve. In equilibrium, the demand curve (D) slopes downward, and the marginal revenue curve (MR) lies below it. The firm sets output where MR = MC and charges a price from the demand curve. If the price (Pm) is above average total cost

(ATC), the firm earns supernormal profits. If P = ATC, the firm earns normal profit (break-even). If P < ATC, the firm incurs losses but may continue operating if Pm ≥ AVC (covering variable costs).



In the long run, a monopoly can maintain supernormal profits because barriers to entry prevent new firms from entering the market. Unlike in perfect competition, where firms enter to eliminate profits, a monopolist faces no competition, allowing sustained high prices and profits. The firm continues producing at **MR = MC**, setting a price from the demand curve. Supernormal profits persist, as there is no threat of entry to drive prices down.

(c) Why a Monopolist may be Inefficient in Resource Allocation

A monopoly can lead to allocative and productive inefficiency, meaning it does not use resources optimally:

- **Allocative Inefficiency** (**P > MC**): In a perfectly competitive market, **P = MC**, meaning resources are allocated efficiently. A monopolist restricts output to raise prices (**P > MC**), leading to underproduction and a deadweight loss to society.
- **Productive Inefficiency**: A monopoly may not operate at the lowest Average Total Cost (ATC) since lack of competition reduces the incentive to minimize costs. This means the firm is not producing at the most efficient scale, leading to higher prices for consumers.
- **X-Inefficiency and Lack of Innovation**: Without competitive pressure, monopolists may not be motivated to cut costs or improve product quality. This results in higher production costs, lower efficiency, and reduced consumer choice.

SOLUTION FIVE

(a) The theory of absolute advantage, developed by Adam Smith (1776), states that a country should specialize in producing goods that it can produce more efficiently (at a lower cost and with fewer resources) than other countries. By trading these goods for others that cannot produce as efficiently, all countries involved can benefit from trade.

- A country has an absolute advantage if it produces a good using fewer inputs than another country.
- By specializing in producing goods in which they have an absolute advantage, countries increase overall output and consumption.

(b) Four (4) Reasons why Some Governments oppose Free International Trade

- **Protection of Domestic Industries** – Free trade exposes local industries to foreign competition, potentially leading to job losses.
- **Unfair Competition** – Some foreign firms receive government subsidies, making it difficult for local businesses to compete.
- **Trade Imbalances**—Free trade can lead to excessive imports, causing a balance-of-trade deficit.
- **National Security Concerns** – Some industries (e.g., defence, energy) are crucial for security, and over-reliance on imports can be risky.
- **Other valid reasons**: preventing exploitation, environmental concerns, tax revenue loss

(c) Three (3) factors that can cause a Balance of Trade Deficit.

A balance of trade deficit occurs when a country imports more than it exports.

- **Over-Reliance on Imports** – Countries that depend heavily on imported goods (e.g., oil, machinery) experience trade deficits.
- **Weak Domestic Production** – If local industries are less competitive, they produce fewer goods for export, worsening the deficit.
- **Strong Local Currency (Appreciation**) – A strong currency makes exports more expensive, and imports are cheaper, reducing export demand.
- **Other acceptable factors**: trade policies, inflation, global economic downturn.

(d) Two (2) Policy Measures to Reduce a Balance of Trade Deficit

- **Import Substitution** – The government can promote local industries by encouraging domestic production of goods that are normally imported.
- **Export Promotion** – Governments can support local exporters through subsidies, trade agreements, and market expansion strategies.
- **Other policies** include tariffs and quotas on imports, exchange rate adjustments, currency devaluation, and improving industrial competitiveness

SOLUTION SIX

(a) Opportunity cost refers to the value of the next best alternative forgone or sacrificed when making a decision. In production, it represents the amount of one good that must be sacrificed to produce one more unit of another good due to limited resources.

(b) **Outlining Three Factors that can cause the PPF to shift outward**

- **Increase in the Quantity of Resources:** Growth in the workforce (e.g., population growth, increased immigration), expansion of physical capital such as machinery, tools, and infrastructure and discovery or better utilization of natural resources like land, minerals, and energy all have the potential to shift the PPF outwards.
- **Technological Advancement:** New technologies can increase the productivity of both labour and capital, allowing more output with the same input. For instance, Automation and better farming techniques improve output efficiency in manufacturing and agriculture.
- **Improved Human Capital (Education and Training):** An educated and skilled workforce is more productive. Investments in education, training, and health can enhance the quality of labour. For instance, a nation that invests in (Science, Technology, Engineering and Mathematics (STEM) education may increase technological innovation and production efficiency.
- **Policy and Institutional Reforms:** Policies that promote economic stability, innovation, and investment can improve productive capacity. For example, Reduced trade barriers, better property rights, or infrastructure development can increase productivity.
- **Investment in Research and Development (R&D):** Innovation through R&D can create new products, processes, and methods that enhance productivity. For example: Breakthroughs in renewable energy technology reduce production costs and increase energy availability.
- **Improved Infrastructure:** Better transportation, communication, and energy infrastructure facilitate efficient production and trade, enhancing overall productivity. Examples include roads, railways, and ports that reduce the time and cost of transporting goods.
- **Increase in International Trade and Specialization:** Access to larger markets and participation in global trade can lead to economies of scale and greater specialization. For example, a country focusing on its comparative advantage in production may increase its total output through trade.

(c) The table is shown below:

Output per week(units)	Total costs (TC)	Total variable cost(TVC)	Marginal cost(MC)	Average total cost (ATC)
0	270	-	-	-
5	427.5	157.5	31.5	85.5
10	600.0	330.0	34.5	60.0
15	787.5	517.5	37.5	52.5
20	990.0	720.0	40.5	49.5
25	1207.5	937.5	43.5	48.3

(d) The MR = MC rule states that the firm maximizes profit or minimizes loss by producing by producing the output where marginal revenue equals marginal cost.

- Profits are maximized, if it's able to make profit because the selling price is high enough
- Loss is minimized, if the firm is incurring a loss due to low selling price for its product.

END OF SUGGESTED SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CERTIFICATE IN ACCOUNTANCY

CA 1.4: COMMERCIAL AND CORPORATE LAW

FRIDAY 12 SEPTEMBER 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.

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 Examples of public law are …….

A. Criminal law, Civil Law and Tort Law.

B. Criminal law, Constitutional Law and International Law.

C. Criminal law, Treason and Murder.

D. Criminal law, Civil Law and Company Law.

(2 marks)

1.2. Which rule of statutory interpretation tries to suppress the wrong from being done and advances the remedy to the weakness in the law.

A. Context rule.

B. Golden rule.

C. Literal rule.

D. Mischief rule.

(2 marks)

1.3 All commercial and business agreements have as a general rule……..

A. An enforceable agreement.

B. Written and delivered agreements.

C. The requirement that parties must agree.

D. An intention to create legal relations.

(2 marks)

1.4. Employees can be dismissed using various forms. Which type of dismissal looks at the form of dismissal as opposed to the merits of dismissal?

A. Unfair dismissal.

B. Constructive dismissal.

C. Summary dismissal.

D. Wrongful dismissal.

(2 marks)

1.5. Which of the duties below is **not** a duty of an agent?

A. Duty to account.

B. Duty to delegate.

C. Duty to obey lawful instructions.

D. Duty to avoid conflict of interest.

(2 marks)

1.6. Which of the following are the requirements for a successful negligence claim?

A. Duty of care, breach of duty, damages.

B. Duty of care, breach of duty, damage.

C. Duty of care, breach of duty, death.

D. Duty of care, breach of duty, compensation.

(2 marks)

1.7. Examples of private limited companies are …….?

A. Limited by shares, limited by guarantee, limited by number of shareholders.

B. Limited by guarantee, limited by capital, limited by shares.

C. Unlimited companies, public limited companies (PLCs), limited by liability.

D. Limited by shares, unlimited companies, limited by guarantee.

(2 marks)

1.8 Where partners do not have a partnership agreement, profits and losses will be shared……..?

A. According to capital contributed.

B. Equally regardless of capital contributed.

C. According to the involvement in the management of the partnership.

D. Prorated to the roles in the partnership.

(2 marks)

1.9 Which of the following is not a feature of floating charges?

A. It is a charge on a class of a company's assets, present and future.

B. The assets on which it is charged changes from time to time.

C. Floating charges rank first in order of priority in liquidation.

D. Floating charges allow the company to carry on business and deal with the assets charged until the holders enforce the charge.

(2 marks)

1.10. Which of the following is a good ground for compulsory winding up of the company?

A. If a company fails to pay its debts within 21 days of receipt of a written demand from the creditor.

B. If a company fails to pay its debts within three (3) months of receipt of a written demand from creditor.

C. If a company fails to pay its debts within 14 days of receipt of a written demand from the creditor.

D. When liabilities exceed its assets.

(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).

QUESTION TWO - (COMPULSORY)

A company is defined as an artificial legal person created under the Companies' Act No.10. of 2017, which after incorporation has a separate and distinct existence form its owners and enjoys a number of attributes from the incorporation.

Required:

(a) Discuss the meaning of 'incorporation' and why it is advantageous to a business.

(5 marks)

(b) Mr Mulozi is a partner in a limited liability partnership (LLP) and is now contemplating converting the LLP to a company. He approaches you for advise on the best type of company to form.

Required:

Advise Mr Mulozi on the best type of company he should form according to your assessment of the different types of companies provided in the Companies Act No.10. of 2017 (10 marks)

(c) Furthermore, Mr Mulozi has been wondering the type of capital that he should maintain in his company. He has heard of share capital and loan capital, and that the capital of a company must be kept within the permissible limits so as to protect the interests of its creditors. Explain to him the meaning of "capital maintenance rule", and why it is important. (5 marks)

[Total: 20 Marks]

QUESTION THREE

(a) Zambia has several sources of law. Among them is the Constitution, Acts of Parliament,Judicial Precedent, Common Law and Equity, International Law and Customary Law. Mable is a student who has recently acquired knowledge on the above mentioned sources of law.

She lives in a village known as Chimodzi Village in the Eastern Province of Zambia where it is believed that once a girl becomes of age, then she is ready for marriage. Her elder sister Edith, went through the same rite of early marriage, a few years ago. Mable is currently studying her foundational course in accounting and is wondering how the above sources of law can be applied to curtail some of these bad traditional practices. She is a keen follower of the call to stop early marriages in Zambia.

Required:

Advise Mable on how Statutes/Written Law can help to remedy traditional customs that are inconsistent with any written law. (5 marks)

(b) Bluey and Reagan are two (2) friends working for an Indian Shipping Company which transports goods from India to Zambia every month. They are employed as ship attendants, and they have full time contracts with the shipping company. On a particular voyage, sometime in June this year, they embarked on a journey from Mumbai to Lusaka; unfortunately, the ship developed a fault and got involved in a fatal accident which claimed the lives of many people aboard including Bluey. The accident occurred as the ship was approaching the port in Tanzania.

The company had insured the ship, and they initiated some arrangements with the insurance company to see how the victims of the accident could be compensated. Upon hearing the devastating news, Bluey's wife, Monic immediately initiated proceedings against the company for the emoluments for the trip on which her husband died.

Required:

(i) With reference to the law of contract, advise Monic on the position of the law and whether or not she is going to be successful with her claim. (10 marks)

(ii) One of the defenses that the shipping company raised in their defense against Monic was that there was no valid employment contract between the company and Bluey. They stated that he was a mere 'independent contractor'. Explain the difference between employee and independent contractors, with reference to the facts above, sate whether or not Bluey was an independent contractor. Give reasons for your answer. (5 marks)

[Total: 20 Marks]

QUESTION FOUR

(a) Young Swimmers Club is a group of young swimmers at one of the most prestigious private schools in Zambia. Mr. Morgan Zimba, is the trainer of the young group of swimmers and he is paid K10,000 on the 10th of every month for training the swimmers. He trains them on a part-time basis.

His employer has been having some financial challenges, which has also affected the timely payment of Mr. Morgan Zimba's dues. The employer hence came up with a plan of paying Mr. Morgan, K7,000 before the 10th so that they could save at least a K3,000. Mr. Morgan Zimba is very furious about this plan and does not understand how a person can temper with his K3,000 which he needs for his survival. He then approaches his employer, who responded by indicating that he relied on a rule of consideration that states that:

"a payment of a lesser sum of money before the due date is good consideration", and also that *"consideration should be sufficient, it need not be adequate."*

Required:

With the aid of case law, explain the meaning of the above rules of consideration to Mr. Morgan Zimba. (15 marks)

(b) List any five (5) examples of tortuous actions that you know. (5 marks)

[Total: 20 Marks]

QUESTION FIVE

(a) Mulenga is an agent of Bwalya who sells fish and kapenta from Siavonga. Last week, Mulenga was transporting Bwalya's kapenta from Siavonga which was meant to be delivered at Cross Hill Lodge in Northmead, Lusaka. Unfortunately, Mulenga had a tyre burst as he was approaching Chilanga. He only managed to fix the tyre an hour later and then by the time he reached Lusaka town he realized that the kapenta had started going bad. So he decided to go to Soweto market and sell the kapenta at half the price.

Meanwhile the Manager of Cross Hill Lodge was expecting to receive the fresh kapenta as they were having their matebeto buffet the following day. So she called Bwalya who assured her that the kapenta would be delivered. Unfortunately after contacting Mulenga, he discovered that the kapenta was not in existence. When asked, Mulenga claimed agency of necessity.

Required:

(a) Explain whether or not agency of necessity applied in this case. (5 marks)

(b) Bwalya is thinking of entering into a partnership or form a company so that he can appoint his favourite cousin as one of the Directors.

Describe to him the process of forming a partnership in Zambia. (10 marks)

(c) List any five (5) duties of Company Directors. (5 marks)

[Total: 20 Marks]

QUESTION SIX

(a) On 1 June, Bupe, a promoter, acquired a mining lease. On 3 June, he sent the incorporation documents to the Registrar at the Patents and Company Registration Agency (PACRA). On 4 June, Bupe entered into a contract to acquire mining equipment for the company. The same day, the Registrar signed the certificate of incorporation for 'Mukuba Mining Plc'. The certificate is dated 5 June.

Discuss whether the contract entered into on 4 June is enforceable by and against the company. (10 marks)

(b) Define Bankruptcy and explain its consequences. (5 marks)

(c) A contract of sale is a contract where the seller agrees to transfer the property in the goods for money consideration known as the price. Identify five (5) types of transactions not covered by such a contract. (5 marks)

[Total: 20 Marks]

END OF PAPER

CA1.4 – COMMERCIAL AND CORPORATE LAW

SUGGESTED SOLUTIONS

SOLUTION ONE

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

SOLUTION TWO

(a) Incorporation means registering the company under the Companies' Act No.10. of 2017; after which the company becomes a separate legal person. The most important consequences of registration are that a company becomes legal person distinct from its owners. The other advantages of registering a company are, limited liability; capacity to sue and be sued; owning property; perpetual succession.

(b) Part II of the Companies Act provides for the incorporation and registration of companies. Section 6 of the Act recognizes two types of company's namely public limited company and three forms of a private company, i.e. private company limited by shares, private company limited by guarantee and an unlimited company.

Public Company: The term "Public Company" is used to describe a company which is incorporated in accordance with section 6 and fulfils the requirements stipulated in section 7 of the Act. Public companies are usually subject to more stringent regulatory rules than private companies due to their dealings with the public. Thus, unlike a private company, a public company can only be incorporated as a company limited by shares. While private companies can have a purely nominal share capital, public companies have much larger requirements imposed.

Private Companies Limited by Shares: These are by far the majority of companies registered in Zambia. Private companies are provided for under section 9 of the Companies Act. The legal letter of such companies is summarized in the application form of companies, i.e. Companies Form 3. They are formed for purposes of creating profit while at the same time offering limited liability.

Companies Limited by Guarantee: Section 10 of the Companies Act provides for a company limited by guarantee. This type of company does not have share capital; must not carry on business for purposes of profit to its members or anyone responsible for its management; it is not allowed to invite members of the public to acquire shares. Companies Form 6 must be filled in by subscribers to indicate that in the event of winding-up, the subscribers shall pay what they have guaranteed. The members are not referred to as shareholders because there is no share capital. One therefore, becomes a member by subscribing and by signing Companies Form 6 as well as meeting the other pre-requisite requirements. A company limited by guarantee can make an application 19 to the Registrar by which it will be entitled to omit the use of the word "limited". (Refer to section 37 (1) of the Companies Act).

Private Unlimited Companies: Section 11 of the Companies Act provides for this third type of private companies regulated under the Act. They are very unusual types of companies. Companies Form 3 shows that this type of company is similar to private companies limited by shares. Unlimited companies are however, different from private companies limited by shares in the following ways:- (a) There is no limited liability so that in the event of winding-up the members are required to contribute towards debts of the company to an unlimited extent. In this regard they are like partnerships. (See section 11 (3) of the Companies Act). (b) Unlimited companies may, especially in formative stages, benefit from access to loans much easier than companies limited by shares due to this

unlimited liability which assures the lender of the repayment of debt by the members themselves should the company fail to pay.

Therefore, the best type of company Mr Mulozi must go for is the Private Limited Company because it offers more security, is ideal even in term of capital and other regulatory requirement needed to run it.

(c) Capital is a word that can have many meanings. In company law however capital is used in a restricted technical sense. Broadly, it is cash (or less often the value of the assets) received by the Company from investors who subscribe for the company's shares.As we stated before, the concern of the law is to see that those who take up shares in a company do in fact contribute the value of their shares in money or money's worth. This fund of contributions being the company's legal capital is intended by law to provide creditor protection, in some senses at the expense of the company's members.

SOLUTION THREE

(a) A statute refers to a written law. In Zambia we have the Constitution as a statute and other Acts of Parliament. The Constitution of Zambia provides that "the Constitution is the supreme law of Zambia and any law, customary law or customary practice that is inconsistent with its provisions is void to the extent of its inconsistency." (Article 1(1)).

Further, Section 12 of the Local courts Act, Chapter 29 of the Laws of Zambia affirms that African customary law may not be applied when it is repugnant to natural justice and morality or incompatible with written law. Also it will not apply where it is not repugnant to equity and good conscience. In this way statute remedies bad traditional practices such as early marriages in this case. These must be stopped as they go against the Constitution and statutes such as Children's Code Act. The elements of a valid custom are:

- Conformity with the Constitution, statute and public policy.
- Reasonableness
- Consistency
- Obligatory enforcement
- Antiquity
- Continuous observance
- Peaceful enjoyment

(b) (i) In **Cutter v Powell (1795) 6 TR 320,** Mr. Cutter, a sailor, was hired for a voyage and given a promissory note from his employment that ten days after the ship arrives at Liverpool, he will pay Mr. Cutter a certain sum, "provided he proceeds, continues and does his duty as second mate in said ship from hence to the port of Liverpool." Mr. Cutter began sailing the ship as second mate for about six weeks, yet died before its arrival in Liverpool. Mr. Cutter's wife brought an action for a proportionate part of his due wages for the substantial amount of the voyage on which he acted as second mate.

The Court noted that the contract made payment conditional on performance of the full voyage as a form of insurance for the employer. Accordingly, the Court held that, even though the sailor was not to blame for failure to perform the contract, the express terms of the contract renders payment conditional on the full performance of the contract. Thus, on a construction of the express terms of the contract, no payment was due for partial performance.

With reference to the principle in the above case, Monic will not succeed in her action to claim for payment.

(ii) The following are the tests applied to determine whether a person is an employee or an independent contractor.

(1) The control test

Has the employer control the way in which the employee performs his duties?

'Used by the courts to determine whether a contract of employment exists by ascertaining whether the employer has control over the manner in which the work is done. Now largely superseded by more comprehensive tests in which the "right to control" performance is merely one of a number of relevant factors.'

Mersey Docks & Harbor Board v Coggins & Griffiths (Liverpoor) (1947)

Stevedores hired a crane with its driver from the harbor under a contract, which provided that the driver (appointed and paid by the harbor board) should be the employee of the Stevedores. Owing to the driver's negligence a checker was injured. The case was concerned with whether the Stevedores or the harbor board were vicariously liable as employers. Held: in the House of Lords, that the issue must be settled on the facts and not on the terms o the contract. The Stevedores could only be treated as employers of the driver if they could control in detail how he did his work. But although they could instruct him what to do, they could not control in him how he operated the crane. The harbor board (as 'general employer') was therefore still the driver's employer.

(2) The integration test

If the employee is so skilled that he cannot be controlled in the performance of his duties, was he appointed and assigned to his duties by the employer – was he integrated into the employer's organization. 'Used by the courts to determine whether a contract of employment exists, this will be so if worker is an integral part of the organization but not if his work remains outside it and is merely accessory to it.'

Cassidy v Ministry of Health (1951)

The full-time assistant medical officer at a hospital carried out a surgical operation in a negligent fashion. The patent sued the Ministry of Health as employer. The Ministry resisted the claim arguing that it had no control over the doctor in his medical work. Held: in such circumstances the proper test was whether the employer appointed the employee, selected him for his task and so integrated him into the organization. If the patient had chosen the doctor the Ministry would

not have been liable as employer. But here the Ministry (the hospital management) made the choice and so it was liable.

(3) The multiple Tests

This is an employee working on his own account?

'A test used by the courts to determine whether a contract of employment exists. As the name suggests, all relevant factors are considered including the extent of the employer's control, the right to engage and dismiss, the basis upon which payment is made, whether deductions are made for income tax or national insurance, the hours of work and the provision of tools and equipment.'

Ready Mixed Concrete (South East) v Ministry of Pensions & National Insurance (1968)

The driver of a special vehicle worked for one company only in the delivery of liquid concrete to building sites. He provided his own vehicle (obtained on hire purchase from the company) and was responsible for its maintenance and repair. He was free to provide a substitute driver. The vehicle was painted in the company colours and the driver wore its uniform. He was paid gross amounts (no tax etc deducted) on the basis of mileage and quantity delivered as a self-employed contractor. The Ministry of Pensions claimed that he was in fact an employee for whom the company should make the employer's insurance contributions. Held: in such cases the most important test is whether the worker is working on his own account (entrepreneurial test or multiple). On these facts the driver was a self-employed transport contractor and not an employee.

Other factors

Other significant factors are as follows:

(a) Does the employee use his own tools and equipment or does the employer. Provide them? If by these various tests the actual tortfeasor is not regarded as an employee he is likely to be an independent contractor.

(b) Does the alleged employer have the power to select or appoint its employees and may it dismiss them?

(c) Payment of salary is, as mentioned above, a fair indication of there being a contract of employment. But there are exceptions. A person may still be an employee if he is paid no salary but derives his income solely from commission or tips. A person may receive a salary but not be an employee – for instance, Member of Parliament.

The above are the issues to be factored in when determining whether a person is an employee or a n independent contractor. In Bluey's case, for the company to have denied to pay him remuneration, it means that Bluey was an independent contractor, since an employee is paid a salary. Its also true to state that had he been an employee, there was no need for the company to require him to complete the voyage as employees will always get a salary at the end of each month, unless other wise. They are not paid on commission basis.

SOLUTION FOUR

(a) There have been several case law definitions, for example from **Curry v Misa (1875)**: 'Some right, interest, profit or benefit accruing to one party, or some forbearance, detriment, loss or responsibility given suffered or undertaken by the other. As long as some value is given the court will not ask whether it is proportionate value to the thing given in return. In other words there is no remedy for someone who makes a bad bargain. In **Thomas v Thomas** (1842) executors agreed to convey the matrimonial home to a widow provided she paid £1 per year rent and kept the house in repair. In action on the promise to convey it was held that the promise of payment and doing the repairs were valuable consideration. Payment on the day that a debt is due of less than the full amount of the debt is not consideration for a promise to release the balance (**Pinnel's Case (1602**). However, if the creditor agrees to take something different from what he is entitled to, or if payment is made at his request at an earlier date there is sufficient consideration.

From the two cases above, it is clear that consideration need to be sufficient and not adequate, meaning anything of value can be referred to as consideration as in the case of **Thomas v Thomas**; secondly, payment of a lesser sum of money before the due date is good consideration.**(Pinnel's Case).** Thus if he agrees to that K7, 000 foregoing the K3, 000, that will be sufficient consideration as he will receive it before the due date. If not interested, he can refuse the proposal.

(b) Examples of tortuous actions are:

- Negligence
- Defamation
- Assault
- Battery
- False imprisonment
- Trespass, etc.

SOLUTION FIVE

(a) Agency of necessity is formed by operation of law (i.e. automatically). Thus the principal may be bound to a contract made on his behalf without and which he refuses to ratify. Three conditions must be satisfied:

1. There must be an emergency, making it necessary for the agent to as he did.
2. In **Prager v Blatspiel (1934).** A bought skins as an agent for P but was unable to send them to P because of prevailing war conditions. Since A was also unable to communicate with P he sold the skins before the end of the war. It was held that A was not an agent of necessity, because he could have stored the skins until the end of the war. There – was no real emergency.

   It must not be impossible to get instructions from the principal.

   In Springer v Great Western Railway (1924)

   A consignment of fruit was found by the carrier to be going bad. The carrier sold the consignment locally instead of delivering it to its destination. It was held that the carrier was not an agent of necessity because he could have obtained new instructions from the owner of the fruit. He was therefore liable in damages to the owner.

3. The agent must have acted in a good faith and in the good interests of all the parties. **In Great Northern Railway v Swaffield (1974),** a horse was sent by rail and on its arrival at its destination there was no one to collect it. GNR incurred the incurred the expense of stabling the horse for the night. It was held the GNR was an agent of necessity who had implied authority to incur the expense in question.

For agency of necessity to be operative, all the above elements must be in met. However, from the facts above, it is clear that Mulenga did not contact the Principal to get instructions nor act in the best interest of the principal. Hence Mulenga cannot claim agency of necessity.

(b) Formation of Partnership is usually done by a partnership deed. Otherwise there are no other special formalities, except that the business must be registered with PACRA and payment of the registration fee to be paid. The following details a re found under the partnership deed.

(i) The firm's name

(ii) The place and nature of the business

(iii) Date on which the partnership is to commence and its duration. If there is no fixed period then it is a partnership at will

(iv) The proportions in which capital is to be provided, and whether interest in the paid on capital before profiles are divided

(v) details of the firm's bank account, including who is allowed to sign cheques

(vi) whether all or only some of the partners shall manage the business and whether all partners shall give their whole time to the business:

(vii) How profits are to be shared and provisions for drawing:

(viii) Provisions for keeping regular account and the preparation of an annual profit and loss account and balance sheet.

(ix) What shall happen o the death or retirement of a partner? In the absence of an agreement to the contrary the death of a partner automatically dissolves the partnership.

(x) Whatever a retired partner is allowed (within limits) to compete with the firm.

(xi) A list of description of what is agreed to be partnership property.

(xii) Insurance against death or sickness of a partner and for the business generally.

(xiii) Any limits on the business interests of the persons outside the firm.

(xiv) Any arbitration clause.

(c) - duty to act within powers and exercise it properly

- Duty to avoid conflict of interest
- Duty to disclose conflict of interest
- Duty to exercise independent judgment
- Duty not accept benefits from third parties
- Duty to exercise care and skill
- Duty not to make a secret profit.

SOLUTION SIX

(a) The legal issue is whether a contract that was formed before Mukuba mining Plc existed is binding on the company. This is a pre-incorporation contract. Pre-incorporation contracts are contracts that are entered into on behalf of a company that has not yet been incorporated.

In **Kelner v Baxter (1866),** it was established that a company cannot be bound by a contract that was formed before it existed. In this case, Baxter and others agreed on behalf of a company yet to be formed to purchase trade stock for its business. Later, the company was formed and accepted and used the stock, but failed to pay for it. It was held that the company was not liable. Baxter and his friends were, therefore, held liable to Kelner for the payment of the stock.

Kelner is similar to our scenario in the sense that Bupe as a promoter also entered into a contract to buy mining equipment for a company which did not exist. The contract was formed on 4th June. Although the Registrar issued the certificate of incorporation on the same day, the company started existing on the date indicated on the certificate which is 5th June.

The Companies Act 2017 has also made provisions for pre-incorporation contracts. Section 20 of the Companies Act 2017 provides that it is a promoter who is bound by a pre-incorporation contract. If the contract is in writing, a promoter can escape liability by stating clearly in the contract that he shall not be bound. From the scenario, it is obvious that Bupe did not exclude liability. Therefore, Bupe, and not Mukuba Mining Plc, will be liable under the contract.

(b) Bankruptcy is a legal process where an individual or company is declared unable to pay their debts, resulting in significant effects like immediate relief from creditor calls, but also severely damaging credit scores, making it difficult to access future loans, and potentially impacting employment opportunities depending on the situation. The person declared bankrupt is like a dead person as they cannot do anything on their own without needing an administrator.

Key effects of bankruptcy:

- **Credit score damage:**

  Filing for bankruptcy significantly lowers your credit score, making it harder to qualify for loans, credit cards, and even renting an apartment in the future, due to the negative mark on your credit report for a prolonged period.

- **Creditor contact ceases:**

  Once you file for bankruptcy, creditors are legally required to stop contacting you regarding debt collection efforts.

- **Potential asset liquidation:**

  Depending on the type of bankruptcy filed (like Chapter 7), some of your assets may be liquidated to pay off creditors, although certain exemptions usually apply to protect essential belongings.

- **Impact on employment:**

  While not always direct, bankruptcy can sometimes affect your employment prospects, especially for jobs requiring high financial responsibility, as potential employers may view it as a red flag.

- **Limited access to credit:**

  Even after bankruptcy, accessing credit may be difficult, and if available, it will likely come with higher interest rates and fees.

- **Psychological stress:**
  The process of filing for bankruptcy can be emotionally stressful due to the financial burden and potential social stigma associated with it.

(c) Only a sale of goods is covered by the Sale of Goods, Act 1893. Such a contract should be distinguished from other types of transaction, which may resemble, but are intrinsically different from sales of goods. The more common transactions in this category are described below:

(a) A gift is a transfer of property without consideration. There is no contractual status in a gift unless it is under deed.

(b) A contract of barter or exchange: Much depends on the intention of the parties: for instance, an old car 'traded-in' for a new one is certainly part of a sale of goods.

(c) A contract of bailment: property does not pass in such a transaction: the bailee is merely a custodian, who will usually redeliver the goods to the bailor in accordance with his instructions.

(d) A supply of service: a supply of services, such as a repairing contract, is governed by the Supply of goods and services Act which, although similar in many ways to the Sale of Goods Act, imply certain different terms into the contract.

(e) An agency contract: the duties of agent and seller are not the same.

(f) A loan with goods as security. Such a transaction may take the form of X 'selling' his car to Y, who then lets it back to X on hire purchase. If the only intention is that it should be a loan, then the transaction should be registered as a charge; failure to do makes it void and Y could not treat the car as a security. If it is genuine, then there is a contract of sale followed by a hire purchase contract.

(g) A hire-purchase: contracts of hire-purchase resemble contracts of sale very closely, as the ultimate sale of the goods is usually the whole purpose of the transactions. A contract of hire-purchase is really a bailment of the goods with an option to purchase.

(h) Contracts for sale land are also not covered under the Sale of Goods Act.

END OF SUGGESTED SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA CERTIFICATE IN ACCOUNTANCY

CA 1.5: MANAGEMENT THEORY AND PRACTICE

MONDAY 8 SEPTEMBER 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.

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 Based on your readings of various literature and recommended materials for this course, the term 'organizational climate' defines;

A. How the employees feel about working for the organization.
B. How organizations share values, beliefs, habits, norms, philosophies, experiences, and behaviours.
C. What the company does best.
D. A key concept that guides managers and their actions.

(2 marks)

1.2 Drucker grouped the work of managers in categories that include:

A. Setting objectives for the organization.
B. Organizing the work.
C. Developing people.
D. All the above.

(2 marks)

1.3 Theory X assumes which of the following?

A. People seek out responsibility.
B. People achieve little satisfaction from work.
C. People are committed to organizational activities.
D. People regard work as normal activity.

(2 marks)

1.4 Which of the following statements is true?

A. A sole trader nature of business makes profits.
B. Partnership involves two or more people doing a business together.
C. A limited corporation is made of private individuals.
D. None of the above.

(2 marks)

1.5. Which of the following is expert power?

A. Leader can reward staff who complies with instructions.
B. Leader can punish staff who does not comply with instructions.
C. Leader has power because subordinates trust him/her.
D. Leader has power because of their expert knowledge.

(2 marks)

1.6. Aldefer and McClelland are two (2) examples of _____ theories of motivation.

A. Content.
B. Process.
C. Equity.
D. Expectancy.

(2 marks)

1.7. Peter Ferdinand Drucker was an Austrian American management consultant, educator, and author, whose writings contributed to the philosophical and practical foundations of modern management theory. He outlined the management system commonly known as MBO. The acronyms MBO means

A. Movements by Observing.
B. Management by Observation.
C. Management by Objectives.
D. Management by Objections.

(2 marks)

1.8. Which one of the following statements is true?

A. A matrix Organization is a structure where vertical and horizontal lines of authority are combined to form a project team design specifically for a particular project.

B. A matrix Organization is a structure where function authorities are established for a profit.

C. A matrix Organization is a structure where marketing and Accounts department works together.

D. None of the above is correct.

(2 marks)

1.9. Contingency management is based on the belief that …….

A. There is no one best way of managing and leading.

B. There is always one best way of managing and leading.

C. There is always one good employee in every organization.

D. Every manager can be the best if given the right human resource.

(2 marks)

1.10. Which of the following are organizations that are owned partly or wholly by the state: They are not a government department but a separate organization such as a corporation?

A. Partnership organizations.

B. Parastatals organizations.

C. Non-Governmental Organisations.

D. Public Private Partnership organizations.

(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)

Microbiz Ltd manufactures water tanks. In the first year of its operations, the revenue earned by the company was just sufficient to meet its costs. To increase the revenue, the company analysed the reasons behind the less revenues. After analysis, the company decided:

(1) To reduce the labour costs by shifting the manufacturing unit to a backward area where labour was available at a very low rate.

(2) To start manufacturing solar water-tanks and reduce the production of electric water heaters slowly.

This will not only help in covering the risks but also help in meeting other objectives.

Required:

(a) Describe any two (2) objectives of management that are discussed above. (8 marks)

(b) State any two (2) values which the company wanted to communicate to society. (4 marks)

(c) Briefly discuss any 4 Ps of the Marketing Mix. (8 marks)

[Total: 20 Marks]

QUESTION THREE

After completion of your CA Zambia qualification, you are offered a job as Trainee Manager in a large financial institution, and there is a need for standardized processes to ensure accuracy and reliability in financial transactions.

Required:

(a) Describe any four (4) bureaucratic management principles by Max Weber and state how you can apply them to establish a rule-based system to enhance organizational control. (8 marks)

(b) In a project based company, employees receive conflicting instructions from multiple Project Managers, causing confusion and delays. State how the principle of 'unity of command' and 'unity of direction' can help address the issue and improve coordination within the organization. (8 marks)

(c) Outline the steps involved in work planning for Managers. (4 marks)

[Total: 20 Marks]

QUESTION FOUR

With the increase in Constituency Development Funding (CDF) by the Government, most people are being encouraged to form Cooperatives and, Small and Medium Enterprises (SMEs) because this has created a window of business opportunities in Zambia and for Zambians. However, a good business must have clear goals and well set objectives.

Required:

(a) List four (4) advantages of a Cooperative form of business (4 marks)

(b) What is a mission statement and organizational goals? (6 marks)

(c) Explain what is meant by Objectives being SMART (10 marks)

[Total: 20 Marks]

QUESTION FIVE

(a) Explain the deference between Recruitment and Selection. (4 marks)

(b) Define the following terms in relation to management:

(i) Responsibility. (2 marks)

(ii) Authority. (2 marks)

(c) List down any six (6) principles of Corporate Governance. (12 marks)

[Total: 20 Marks]

QUESTION SIX

Workers are generally motivated by both internal and external factors. Internal factors include an individual worker's own personal thought processes and experiences. External factors are those, such as the organizational culture, that either inspire workers to be productive through the use of rewards or by instilling a sense of fear in workers.

Required:

(a) Use the Maslow's Needs theory to explain how employees can be motivated at each stage. (10 marks)

(b) Explain any five (5) forces that influence organizational culture. (10 marks)

[Total: 20 Marks]

END OF PAPER

CA 1.5 MANAGEMENT THEORY AND PRACTICE

SUGGESTED SOLUTIONS

SOLUTION ONE

1.1 A

1.2 D

1.3 D

1.4 B

1.5 D

1.6 A

1.7 C

1.8 A

1.9 A

1.10 B

SOLUTION TWO

(a) The objectives of management discussed above are:

i. Organizational objectives: An organization strives to achieve multiple organizational objectives in the interest of its stakeholders like owners, employees etc. The main organizational objectives are survival, profit and growth.

ii. Social objectives: It is the obligation of every organization to undertake such activities which will benefit the society at large like using eco-friendly methods, contributing towards weaker sections of the society, generating employment opportunities, promoting literacy etc.

(b) The two values that the company wanted to communicate to the society are:

i. Rural development

ii. Environmental sustainability

(c) Marketing Mix (4Ps) are:

(i) -**Product** – Features of the product designed to attract customer

(ii) -**Price** – Basic price of the product including discounts and credit terms

(iii) -**Place** –Channels through which goods are sold and places where customers can buy from

(iv) -**Promotion** – All marketing communications to make customers aware of the products on adverts and promotions.

SOLUTION THREE

(a) **Bureaucratic management principles by Max Weber are:**

i. There should be a hierarchy of authority, from top management down to workers at the bottom. Information should flow up the chain of command and instructions and directions should pass down the chain.
ii. A bureaucracy should operate in an impersonal way. There should be clear statements of duties, responsibilities and procedures and written rules of conduct.
iii. There should be division of labour and specialization of work.
iv. The promotion of individuals within the organisation should be based on their achievement.

(b) **Principle of 'unity of command' and 'unity of direction' and they can improve coordination within the organization**:

i. **Unity of Command**: An employee should receive orders from just one boss. If the employee has two bosses, they might give contradictory instructions. Dual command is a source of conflict.
ii. **Unity of Direction**: In order to provide for unity of action, coordination and focusing of effort, there should be one plan and the same objective for everyone engaged in a particular activity or project.

(c) The following are steps involved in work planning:

(i) **Task sequencing or prioritization**: Managers put tasks into an order of importance for achieving objectives and meeting deadlines.
(ii) **Scheduling or Timetabling Tasks**: Tasks should then be allocated to individuals or project teams for completion within a given deadline.
(iii) **Establishing checks and controls** to ensure that deadlines are being met and routine tasks are achieving their objectives.
(iv) **Contingency Plans:** Managers should make alternative plans to be used in circumstances where the unexpected happens.

Coordinating the efforts of individuals: Managers should integrate activities and schedules so that data and work flows smoothly from one stage of an operation to another.

SOLUTION FOUR

a- **List Four (4) advantages of a Cooperative form of a business**

i. There are equal voting rights for members.
ii. The structure encourages member contribution and shared responsibility.
iii. Liability for members is limited.
iv. There is no limit on the number of members

b- **What is a mission statement and organizational goals**

i. **Mission statement**-this is the organizations overriding purpose. It reflects the values and expectations of stakeholders and answers the question 'what business are we in?
ii. **Organizational Goal-** Statement of general aim or purpose that supports the mission. It may be qualitative in nature.

c- Explain what is meant by objectives must be SMART

S=Specific- Narrow and specific
M=measurable-define what evidence will prove that you are making progress
A=Achievable= must be attainable or must be accomplishable
R= Realistic= must be relevant and aligned to the values
T= Time bound= must have a time limit or end time

SOLUTION FIVE

(a) **Explain the deference between Recruitment and Selection**

(i) Recruitment involves actively seeking out and advertising to potential candidates and obtaining their interest in the position.
(ii) Selection refers to the process of determining the best candidate from the pool of applicants.

(b) **Define the following terms in relation to management**

(i) **Responsibility** refers to the liability of a person to be called to account for his /her actions and decisions.
(ii) **Authority** refers to the scope and amount of discretion given to a person to make decisions or take action.

(c) **Six Principles of Corporate Governance are:**

(i) Probity/honest
(ii) Integrity
(iii) Independence
(iv) Fairness
(v) Responsibility
(vi) Accountability
(vii) Transparency

SOLUTUTION SIX

(a) Use the needs theory of motivation to show how employees are motivated starting with the most basic need.

i. **Physiological Needs.** These include needs for satisfaction of hunger and thirst, need for sleep, sensory pleasures, activities, material behaviour and sex desire.

ii. **Safety Needs.** These include safety and security, freedom from pain or threat of physical attack, protection from danger or deprivation and the need for predictability and orderliness.

iii. **Love or Social Needs.** These include needs for affection, sense of belonging, social activities, friendship, and giving and receiving of love.

iv. **Esteem or Ego Needs.** These include self-respect and esteem of others. Self-respect involves the desire for confidence, strength, independence and freedom and achievement. Esteem of others means reputation or prestige, status, recognition, attention and appreciation.

v. **Self-Actualisation Needs.** This is the development and realisation of one's full potential. Maslow regards this as what humans can be, they must be, becoming everything that one is capable of becoming.

*Note that these needs act as motivators because, as one level of need of satisfied, the employee aspires to seek satisfaction to the next higher level of Need.

(b) Explain some of the external forces that can influence organizational culture:

(i) The organization **Founder**
A strong set of values and assumptions is set up by the organization founders, and even after he or she has retired, these values remain influential. An organization might find it hard to shake off the original Culture.

(ii) The organization **History**

- Culture reflects the era when the organization was founded
- The effect of history can be determined by stories ,rituals and symbolic behavior. They legitimize behavior and promote prioritizes

(iii) Leadership and Management Style.
An organization with a strong culture recruits and develops managers who naturally conform to the way of doing things and perpetuates cultures. New managers may insist on bring into the organization leadership and management that worked in organizations where they from, and fail to adapt to the new culture of the organization where they are now.

(iv) The Environment in the organization
As we have seen, nations, regions, occupations and business types have their own distinctive cultures, and these will affect the organization's style.

v. Policies and standard Operating Procedures may affect the culture of the organization

vi. Customer Pressure. Customers may be leaving and reporting that they are unhappy with how they are treated, unhappy with some services and this can prompt the change in working culture.

vii. Ownership Change. An organization may be purchased by an outside company or individual. Often that new owner will want to use a new ways of running the organization that has worked for it in other businesses.

END OF SUGGESTED SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA CERTIFICATE IN ACCOUNTANCY

CA 1.6: BUSINESS COMMMUNICATION

WEDNESDAY 10 SEPTEMBER 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.

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 Super computers ……..…….

A. Of the same size as laptops.
B. Rarely used by researchers due to their lack of computing capacity.
C. Common in majority of households.
D. Contain thousands of microprocessors.

(2 marks)

1.2 State the primary purpose of a firewall in a computer network?

A. To store backup copies of data.
B. To monitor and control incoming and outgoing network traffic.
C. To enhance the speed of the internet connection.
D. To manage user accounts and permissions.

(2 marks)

1.3 OAS are abbreviations for.

A. Office Advanced Systems.
B. Office Access Systems.
C. Office Automated Systems.
D. Office Automation System.

(2 marks)

1.4 Which of the following is the correct measurement of the CPU performance?

A. Hertz.
B. Byte.
C. Bit.
D. Milli Seconds.

(2 marks)

1.5 Which one of the following is NOT a quality of good information?

A. Cost effective.
B. Relevant.
C. Easy to use.
D. Accountable.

(2 marks)

1.6 The **7Cs** of effective communication include all of the following **except**:

A. Clarity.
B. Concreteness.
C. Complexity.
D. Conciseness.

(2 marks)

1.7 Which of the following best describes how you should tailor your Curriculum Vitae when applying for a job?

A. Use the same CV for all applications.
B. Customize your CV for each application by highlighting the most relevant experience and skills for the specific role.
C. Include your professional experience more than your educational background.
D. Only update your CV when you change jobs.

(2 marks)

1.8 A Line graph is useful for_____

A. Showing the relationship between two variables.
B. Showing the sizes of components elements of a total value.
C. Comparing magnitudes or sizes of items.
D. Forecasting progress on a project.

(2 marks)

1.9 What is the key disadvantage of informal communication channels?

A. Speed of transmission.
B. Builds relationships.
C. Encourages collaboration.
D. Lack of documentation.

(2 marks)

1.10 If an email contains unclear instructions, how should you respond?

A. Ignore it.
B. Request clarification politely.
C. Guess the instructions.
D. Forward it to someone else.

(2 marks)

[Total: 20 Marks]

SECTION B

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

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

QUESTION TWO - (COMPULSORY)

You are a supervisor at a small enterprise. You have observed that two members of staff are very hardworking and committed to their jobs. This has earned them recognition by management for their efforts. However, they lack certain Information Technology (IT) skills that would match very well with their profession as upcoming accountants. You wish to support your junior staff so that they can enhance their IT skills by requesting through a letter to management to send the two staff for training in Information Technology.

Required:

(a) State the appropriate complimentary close associated with the following salutations:

(i) Dear Rose
(ii) Dear Dr. Muna
(iii) Dear madam
(iv) Dear customer
(v) Dear Sir

(5 marks)

(b) Write a letter to management requesting for sponsorship for the two (2) members of staff to train in Information Technology. In your letter include any three ((3) reasons the two (2) staff should be sponsored for IT training by the organisation. (15 marks)

[Total: 20 Marks]

QUESTION THREE

(a) Sibongile is a new employee in the finance department of your organisation. She has been assigned the task of implementing new accounting software but is not confident about both Physical security and internet threats required.

Required:

(i) Describe three (3) common cyber threats that Sibongile should be aware of when working with accounting software. (6 marks)

(ii) Discuss two (2) ways to ensure physical security of computer systems in the finance department. (4 marks)

(b) In the rapidly evolving landscape of business and technology, organizations are constantly seeking ways to streamline their operations and gain a competitive edge. It refers to a comprehensive system that integrates people, technology and data to facilitate efficient organisation management.

Explain two (2) ways an MIS support decision-making in an accounting firm. (4 marks)

(c) Managing high data quality is crucial for organizations to gain valuable insights, make informed decisions and achieve these goals.

List two (2) categories of data quality principles organizations can adopt. (2 marks)

(d) Differentiate between center justification and full justification. (4 marks)

[Total: 20 Marks]

QUESTION FOUR

(a) By evaluating key IT application controls, organizations can ensure the integrity, confidentiality and availability of their data and systems and mitigate potential risks and vulnerabilities. With controls, the Organisation appreciates the existing systems.

Outline five (5) preventative measures against malware on a network system in a business environment (10 marks)

(b) An Accounting Information System is a systematic process of collecting, storing, processing and communicating financial and accounting information in an organisation. It provides relevant and reliable information utilized by internal users for communicating information to investors, creditors and tax authorities.

Explain four (4) ways in which an accounting information system can add value to an organization. (8 marks)

(c) Identify any two (2) main types of tabs that are commonly used to space text across the page when one is using word processing software. (2 marks)

[Total: 20 Marks]

QUESTION FIVE

At Mondwa & company which is a service based organisation, staff in the Accounts and Finance department include visual communication in their reports for management so that important decisions are made. This is because graphical representation of data often proves to be a very effective methods of communication. Despite the challenges that may be experienced with the use of visual communication, accountants at this company appreciates this medium of communication.

Required:

(a) Explain the uses of the following examples of visual communication.

(i) Pie charts (2 marks)

(ii) Bar charts (2 marks)

(iii) Line graph (2 marks)

(b) Outline any four (4) advantages of visual communication. (8 marks)

(c) Identify any three (3) challenges that accountants at Mondwa & Company may experience when using visual communication. (6 marks)

[Total: 20 Marks]

QUESTION SIX

As the Accounts Payable Supervisor at PQR Limited Company, you need to inform your team about errors in vendor payments. You should explain the issue, the steps being taken to fix it, and how to prevent similar mistakes in the future through a memorandum.

Required:

(a) Write a memo to your team informing them about the errors in vendor payments and what is being done to correct the situation. (12 marks)

(b) Explain any four (4) reasons a memo would be ideal in this situation. (8 marks)

[Total: 20 Marks]

END OF PAPER

CA 1.6 BUSINESS COMMUNICATION

SUGGESTED SOLUTIONS

SOLUTION ONE

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

SOLUTION TWO

(a)

(i)	Dear Rose	yours sincerely/ best regards
(ii)	Dear Dr.Muna	Yours sincerely/ best regards
(iii)	Dear Madam	Yours faithfully
(iv)	Dear customer	Yours sincerely/ best regards
(v)	Dear sir	yours faithfully

(b)

MJ & Sons Company

PO BOX 29301

Mongu

Ref: MJ/021/25

Date any suitable date during examination time.

The Human Resources Manager.

PO BOX 29301

Mongu

Dear Sir/ Madam

Recommendation for training in IT- Mr. Mwalusi and Mr. Banda

I am, writing to recommend our two staff, Mr Mwalusi and Mr. Banda to go for further training in Information Technology.

I have been their supervisor for quite some time now and I have observed that the two staff are very hardworking and committed to their jobs.

However, there is a skills gap that has been identified. They lack certain IT skills that would match very well with their profession as upcoming accountants.

I therefore recommend them for training in IT skills. The two staff need to go for training because:

- It will assist them to have growth opportunities and offer good career progression.
- It will also motivate them to have skills variety and continue working diligently to the benefit of the organization

- The company will benefit from real time data for management and clients as well as accurate and timely financial reporting.

Kindly take this request with the attention it deserves. Your quick response in this matter will be greatly appreciated.

yours faithfully.

sender's signature

sender's name

sender's designation

SOLUTION THREE

(a) (i) Three (3) common cyber threats that Sibongile should be aware of when working with accounting software.

- **Phishing**: Fraudulent attempts to obtain sensitive information, such as usernames or passwords, through deceptive emails.
- **Malware**: Software designed to disrupt, damage, or gain unauthorized access to systems. Examples include viruses and worms.
- **Ransomware**: A type of malware that encrypts a user's data and demands payment for decryption.
- **Denial of Service (DoS)**: Overloading a system to make it unavailable to legitimate users
- **Hacking**: The act of gaining unauthorized access to digital systems, networks, or devices by exploiting vulnerabilities in their security.

(ii)Discuss two (2) ways to ensure physical security of computer systems in the finance department.

(b) List any two (2) categories of data quality principles organizations can adopt.

- Intrinsic – Accuracy, objectivity, believability, reputation
- Accessibility – Accessibility, Access security
- Contextual – Relevancy, value-added, timeliness, completeness, amount of data
- Representational – Interpretability, ease of understanding, concise representation, consistent representation

SOLUTION FOUR

(a) Five (5) preventative measures against malware on a network system in a business environment

Preventative measures against malware include:

- Avoid downloading unknown attachments
- Keeping Antivirus Up-To-Date
- compliance maintenance
- Maintaining Patch Updates
- Installing File and System Integrity Monitoring Software
- Installing firewalls to scan incoming emails for malware
- Avoid downloading unvaried software for installation

(b) Four (4) ways in which an accounting information system can add value to an organization?

- It assists various departments by making the accounting information available to all at one click.
- It increases the accuracy of the accounting information.
- The information processed is reliable and secure.
- The probability of errors and misstatement is also reduced.

(c) Two (2) main types of tabs that are commonly used to space text across the page when one is using word processing software.

- Left Tab Stop
- Centre Tab Stop
- Right Tab Stop
- Decimal Tab Stop

SOLUTION FIVE

(a) (i) **Pie charts** are used for showing the relative sizes of component elements of a total value or amount.

(ii) **Bar charts** are used for showing or comparing magnitude or sizes of items eg sales revenue on a monthly basis

(iii) **Line graphs a**re used to show the performance of a variable or variables in a given period.

(b) **Advantages of visual communication**

- **I**t can have a high impact on the audience- pictures and videos can have a great impact on promoting the organisational values
- Large amounts of data can easily be summarised. -
- one can easily illustrate a technique or procedure- for example assembling a piece of furniture.(It assists to demonstrate how to do something)
- One can understand something better when there is a picture or a graph.
- It can be more memorable- One can easily remember the shape of something or a picture of something.

(c) **Challenges that accountants experience when using visual communication**

- In some cases it can be very difficult to interpret
- Some important details can be left out on the pictures or graphs
- It can be distractive
- It is expensive

SOLUTION SIX

(a) **Memo**

PQR LIMITED COMPANY

MEMORANDUM

To: Accounts Payable Team
From: Accounts Payable Supervisor
Date: (Appropriate Date during examination time)

Subject: Vendor Payment Discrepancies

We have identified some discrepancies in vendor payments, which have resulted in incorrect payments. These errors may have arisen due to data entry mistakes, miscommunication, or missing verification steps.

Steps to Resolve the Issue:

1. **Review** – We will conduct an audit to identify and correct affected transactions.
2. **Verification** – A second level of review will be implemented before payments are processed.
3. **Training** – Staff will receive additional training on payment verification procedures.

Preventive Measures for the Future:

- Double-check invoices before processing payments.
- Maintain clear communication with vendors regarding payment details.
- Implement a cross-checking system to ensure accuracy.

Your cooperation in addressing this issue is highly appreciated. If you have any questions, feel free to reach out.

Thank you.

Sender's signature

(b) **Reasons why a memo is ideal in this situation:**

1. Formal and structured communication – A memo provides clear and official communication to the team.
2. Documented record – It serves as written proof that the issue was communicated.
3. Ensures clarity – Allows detailed explanations of the problem and solutions.
4. Quick distribution – Can be shared easily within the department.

END OF SUGGESTED SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA APPLICATION ADVANCED DIPLOMA IN ACCOUNTANCY

CA 2.1: FINANCIAL REPORTING

MONDAY 8 SEPTEMBER 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

You are the Group Accountant of Farmers' Nest. The draft statements of financial position as at 31 March, 2024 for the three (3) companies are given below:

	Farmers' Nest	Ocean Gate	Zambezi Gold
Assets	**K' 000**	**K' 000**	**K' 000**
Non-current assets			
Investment property	100,000	10,000	50,000
Property, plant and equipment	500,000	90,000	25,000
Investments	250,000	100,000	75,000
Total non-current assets	850,000	200,000	150,000
Current assets			
Inventory	50,000	45,000	13,000
Trade receivables	32,000	21,000	11,000
Bank	-	15,000	9,000
Total current assets	82,000	81,000	33,000
Total assets	**932,000**	**281,000**	**183,000**
Equity and liabilities			
Equity shares K2 each	200,000	100,000	80,000
Share premium	351,000	15,000	65,000
Retained earnings	215,000	65,000	14,000
	766,000	180,000	159,000
Non-current liabilities			
15% Loan notes	50,000	30,000	8,000
Deferred tax	30,000	20,000	2,000
Total non-current liabilities	80,000	50,000	10,000
Current liabilities			
Trade payables	24,000	32,000	9,000
Taxation	23,000	19,000	5,000
Bank overdraft	39,000	-	-
Total current liabilities	86,000	51,000	14,000
Total capital and liabilities	**932,000**	**281,000**	**183,000**

The following notes are relevant:

(1) On 1 June 2023, Farmers' Nest acquired 10 million shares in Zambezi Gold for K5 per share when the acquiree's retained earnings were K4 million. This cash payment is included in the investments.

(2) On 1 April 2023, Farmers' Nest acquired 37.5 million ordinary shares in Ocean Gate when the acquiree's retained earnings were K75.5 million. The consideration was made up of:

(i) A share exchange of two (2) shares in Farmers' Nest for every ten (10) shares in Ocean Gate and a deferred cash consideration to be paid in exactly three (3) years' time. Neither of the forms of consideration had been recorded.

(ii) The fair value of deferred cash consideration on 1 April 2023 was K23.5 million and the cost of capital of Farmers' Nest is 10% per annum. The market values of each Farmers' Nest and Ocean Gate share on 1 April, 2023 were K4 and K3 respectively.

(iii) In addition, Farmers' Nest agreed to pay a further amount on 1 April 2024 that was contingent upon the post-acquisition performance of Ocean Gate. At the date of acquisition, Farmers' Nest assessed the fair value of this contingent consideration to be K6.5 million. By 31 March 2024, it was clear that the K6.5 million would be the amount to be paid (ignore discounting). This consideration was not recorded.

(3) Farmers' Nest incurred K100 million directly attributable (due diligence) costs on acquisition of Ocean Gate. Farmers' Nest statement of financial position included this amount as the carrying amount of the investment in Ocean Gate.

(4) At the date of acquisition, the carrying amount of Ocean Gate assets were equal to their fair values with the exception of land and buildings whose fair values were K4 million and K6 million more than their carrying amounts respectively. The buildings had a remaining useful life of four (4) years at the date of acquisition and were depreciated on a straight-line basis. In consolidated financial statements, fair value adjustments should be regarded as temporary differences for purposes of computing deferred tax at an applicable income tax rate of 30%.

(5) Neither Ocean Gate nor Zambezi Gold issued shares in the post-acquisition period. Further, no dividends were paid during the year by any of the companies.

(6) The current account balance of Farmers' Nest in the books of Ocean Gate was K3 million receivable but Farmers' Nest recognized a balance of K2 million payable. The difference in the current accounts is due to a cheque in transit which Farmers' Nest sent on the last day of the financial year, but had not been received by Ocean Gate until the 19 of April 2024.

(7) In the post-acquisition period, Ocean Gate sold goods to Farmers' Nest at a 25% markup. At the year end, inventory worth K42 million received from Ocean Gate was still in the closing inventory of Farmers' Nest.

(8) The non-controlling interest is to be measured at fair value. On 1 April 2023, the market price of the shares of Ocean Gate is deemed to be representative of the fair value of the non-controlling interest.

(9) An impairment review conducted on 31 March 2024 revealed that the investment in Zambezi Gold had suffered an impairment loss of K1 million.

Required:

(a) Prepare the consolidated statement of financial position for Farmers' Nest Group as at 31 March, 2024 according to IFRS/IAS requirements.

(36 marks)

(b) Farmers' Nest is in the process of acquiring another subsidiary, Hope Plc, and has identified a number of issues when reviewing the fair values of Hope's assets.

One of the issues relates to a legal suit by one of Hope's customers for allegedly supplying faulty goods and the customer is claiming damages amounting to K8 million. Hope's legal team has advised that, based on precedence, it is very unlikely that the court will award damages to the customer. The fair value of the contingent liability in respect of the claim has been assessed by the Directors of Farmers' Nest at K2.2 million, based on the very low probability that the customer succeeds. Hope has correctly applied IAS 37 Provisions, Contingent Liabilities and Contingent Assets in preparing its financial statements by treating the suit as a contingency liability.

Required:

Discuss how the above transaction should be treated in the consolidated statement of financial position of Farmers' Nest Plc. (4 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt ANY THREE (3) questions.

QUESTION TWO

The balances below relate to Laitan Plc for the year ended 31 December 2024:

	K 000		K 000
Property at valuation	140,000		
Plant and machinery at cost	80,000		
Accumulated depreciation property-1 January 2024		7,000	Accumulated
depreciation plant and machinery -1 January 2024			20,000
Deferred Tax			5,000
Purchases	175,200		
Inventories 1 January 2024	28,440		
Distribution expenses	20,290		
Interim preference dividend	1,200		Administration
expenses	36,200		
12% Redeemable preference shares			10,000
Ordinary shares of K1.00 each			20,000
Retained earnings on 1 January 2024			45,320
Income Tax			6,200
Sales			377,600
Revaluation reserve			10,000
Trade receivables/trade payables	53,516		47,800
Ordinary dividend	5,200		
Suspense - Disposal proceeds of plant			6,000
Bank	14,874		
	554,920		554,920

Additional Information:

1. The Directors have estimated that K5.95 million would have to be paid as tax on the current year's taxable profits. The balance on the current tax account in the trial balance represents an under/over estimation of tax in the year to 31 December 2023. Laitan estimates that there is a net taxable temporary difference on its net assets at 31 December 2024 equal to K15 million. The company is liable to income tax at a rate of 30%.

2. The inventory on 31 December 2024 was valued at K28.4 million. This includes damaged inventory at a cost of K6.4 million which will require repair work that will cost K2.1 million, and marketing expenses of K0.9 million would be incurred to sell the inventory. The inventory's sales value is expected to amount to K5 million.

3. Laitan has been sued by one of its customers for supplying defective and potentially risky goods. They are demanding compensation for negligence of K6.5 million, although Laitan are prepared to pay K2 million or less. The lawyer consulted indicated that in previous similar cases the judges awarded damages of K4 million.

4. Property was last revalued by a team of surveyors on 31 December 2021. On that date the remaining useful economic life was 40 years. Due to a landslide that occurred in the year to 31 December 2024, it is estimated that the carrying amount of the property at 31 December 2024 after charging depreciation for the year to 31 December 2024 must be reduced by K8 million.

5. Laitan sold an item of plant for K6 million on 31 October 2024. The plant, whose original acquisition cost was K18 million, had a carrying amount of K10 million on the date of disposal. Plant depreciation is charged at the rate of 20% per annum on a reducing balance basis. A full year's depreciation is charged in the year of acquisition and none in the year of disposal.

6. On 1 January 2024 Laitan delivered and installed specialized items of trading inventory with one of its customers for immediate cash settlement of K18,000. The sale price includes a three (3) year servicing contract which will cost Laitan K6,000. Laitan prices service contracts at a markup of 25%. The installation of this type of inventory is normally priced at K2,500 to customers. The K18,000 has been recognized in full as part of sales revenue in the trial balance.

Required:

Prepare for Laitan Plc:

(a) The statement of profit or loss and other comprehensive income for the year ended 31 December 2024. (8 marks)

(b) The statement of changes in equity for the year ended 31 December 2024. (3 marks)

(c) The statement of financial position as at 31 December 2024. (9 marks)

[Total: 20 Marks]

QUESTION THREE

(a) Briefly outline the classification of financial assets for measurement purposes in accordance with IFRS 9 Financial Instruments. (6 marks)

(b) Ndekazi Limited is a manufacturing entity based in the Southern Province of Zambia.

The Directors of Ndekazi Limited (Ndekazi) require advice on the accounting treatment of a number of transactions in finalising preparation of the financial statements for the year to 31 December 2024. They have asked you to advise on the accounting treatment of the following transactions:

Transaction 1

The Directors made an investment in GRZ bonds by acquiring 1 million K100 bonds at par on 1 January 2024. The bonds which carry a coupon interest rate of 10% per annum, matures on 31 December 2025. Ndekazi paid transaction costs amounting to K5 million on 1 January 2024. Assume that the bond interest is paid on 31 December each year over the term to maturity. The bonds are redeemable at par. The original effective interest

rate on the bonds is 7.27%. Ndekazi's policy is to hold investments in bonds till maturity in order to realise the contractual cash flows.

(7 marks)

Transaction 2

On 1 June 2024, Ndekazi issued 5 million, 15% K1 bonds (or loan notes) at par. The bonds, which pay interest on 31 May each year over the term to maturity, are redeemable at par upon maturity. They have a term to maturity of three (3) years. Issue costs paid on 1 June 2024 were K100,000. The original effective interest rate on the bonds is 15.95%.

(7 marks)

Required:

Advise the directors of Ndekazi Limited on the accounting treatment of transactions 1 and 2 above, showing amounts that must be reported in the company's financial statements for the year ended 31 December 2024. (14 marks)

[Total: 20 Marks]

QUESTION FOUR

Hakunakulala is a Zambian owned private company. Details of its statements of financial position as at 31 March 2024 and 2023 are shown below together with the other relevant information.

Statements of financial position as at 31 March:

		2024		2023
Non-current assets:	**K**	**K**	**K**	**K**
Financial assets		2,000		2,000
Property plant and equipment		2,950		1,822
Investment property		800		600
Development expenditure		1,740		960
		7,490		**5,382**
Current Assets				
Inventories	2,160			1,362
Trade receivables	1,644			1,944
Investments	858			276
Cash	174			702
Total Current Assets		**4,836**		**4,284**
Total Assets		**12,326**		**9,666**

Equity and Liabilities

Share capital – K1 ordinary shares	3, 000	2, 400
Share premium	2, 100	600

Revaluation surplus	912	360
Retained earnings	1, 522	1, 530
	7, 534	**4, 890**
Non-current liabilities		
12% Loan note	900	600
Lease liabilities	600	480
Deferred tax	288	270
	1,788	**1, 350**
Current liabilities		
Trade payables	1,644	2,112
Provision on warranties	100	0
Lease liabilities	102	72
Current tax	336	918
Loan interest	30	0
Bank overdraft	792	324
Total current liabilities	**3,004**	**3, 426**
Total equity and liabilities	**12,326**	**9, 666**

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

	K
Revenue	6,856
Cost of sales	(3,872)
Gross profit	2,984
Other expenses	(742)
Finance costs	(90)
Profit before tax	2,152
Income tax expense	(972)
Profit for the year	1,180
Other comprehensive income:	
Gain on revaluation of property, plant and equipment	600
Total comprehensive income for the year	1,780

Additional information.

1. Hakunakulala started giving a one (1) year warranty on some of the products it sells. The amount shown as provision for warranty are an accurate assessment, based on past experience, of the amount of the claims likely to be made in respect of warranties outstanding at each year end. Warranty costs are included in cost of sales.

2. During 2024, expenditure on development projects amounted to K1,140.

3. The Directors of Hakunakulala proposed dividends amounting to K666 on 1 March 2024.

4. Investment property is being measured using the fair value model of IAS 40 Investment Properties, the fair value gain of K200 for the year has been credited to other expenses.

5. The current asset investments are treasury bills and management has decided to classify them as cash equivalents.

6. There was no material change in the fair value of financial assets during the year.

7. During 2024, an item of property, plant and equipment with a carrying amount of K618, was sold for K660. Depreciation charged in the year on property, plant and equipment amounted to K342. Hakunakulala transfers extra depreciation on revalued property, plant and equipment to retained earnings as allowed by IAS 16. Depreciation based on historical cost in 2024 was K294. Hakunakulala purchased K336 worth of property, plant and equipment under a lease contract, payments being made in arrears on the last day of each accounting period.

8. During the year, Hakunakulala made a 2 for 16 bonus issue; capitalizing its retained earnings followed by the rights issue.

Required:

(a) Prepare a statement of cash flows for Hakunakulala for the year ended 31 March 2024 in accordance with IAS 7 using the indirect method. (15 marks)

(b) Briefly explain any five (5) limitations of financial ratios. (5 marks)

[Total: 20 Marks]

QUESTION FIVE

The Directors of Hunga Plc are preparing financial statements for the year ended 31 December 2024. A number of concerns have arisen as the company is finalising the draft financial statements for the period.

You are a CA 2.1 Financial reporting student and the Directors feel that you are up to date with the requirements of the IFRS framework. The Directors have identified the following transactions that would require technical expertise on accounting treatments:

(a) There are cases when similar transactions have taken place in the past and the Directors are wondering whether they can change from the accounting treatments applied in the past to new accounting treatments. In other cases, the nature of the transactions is completely new, without similar transactions having occurred in the past.

The Directors have indicated that IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors may be relevant in addressing their concerns. They have therefore asked you to advise them on how to apply the IAS 8 requirements in

addressing their concerns. (7 marks)

(b) On 1 January 2023, Hunga delivered equipment to a customer as a sale of trading inventory. The customer was invoiced K2.5 million which was immediately settled in full on that date. In addition to delivery of the equipment, Hunga agreed to service the equipment for the customer free of charge over a period of three (3)years commencing 1 January 2023. Servicing this type of equipment is normally invoice at K0.6 million (ignore discounting and compounding).

In accounting for the transaction in its financial statements for the year ended 31 December 2023, Hunga reported the whole invoice amount of K2.5 million as revenue for that year. Subsequently, after financial statements for the year to 31 December 2023 were published, the Directors of Hunga have realised that the transaction was not properly accounted for in accordance with IFRS 15 Revenue from Contracts with Customers. They have identified that IAS 8 must apply in correcting the past year's error in preparing financial statements for the year to 31 December 2024.

They have therefore asked you to advise them on how to apply the IAS 8 requirements in correcting this prior period error. You must also show the entries required to correct the error as at 1 January 2024 and the financial statement extracts in respect of the year to 31 December 2024. (8 marks)

(c) The Directors of Hunga have heard about the IASB's Conceptual Framework for Financial Reporting. However, they do not have detailed knowledge of the contents and status of the conceptual framework. Specifically, they would like to know the nature and purpose of the conceptual framework which they should apply in preparing financial statements for the year to 31 December 2024.

(5 marks)

Required:

Advise the Directors of Hunga Plc addressing their concerns in each case above.

Marks for each transaction are indicated within the case.

[Total: 20 Marks]

END OF PAPER

CA 2.1: FINANCIAL REPORTING

SUGGESTED SOLUTIONS

SOLUTION ONE

(a) Farmers Nest Group

Consolidated statement of financial position as at 31 March 2024

Assets	K'000
Non-current Assets	
Property, plant & equipment (500,000 + 90,000 + 4,000 + 6,000-1,500)(W2)	598,500
Investment property (100,000 + 10,000)	110,000
Goodwill (W3)	-
Investment in Associate (W4)	51,500
Other investments (250,000 + 100,000 – 50,000 – 100,000)	200,000
	960,000
Current Assets	
Inventories (50,000 + 45,000 – 8,400) (W2)	86,600
Trade receivables (32,000 + 21,000 – 3,000) (W7)	50,000
Bank (15,000 + 1,000) (W7)	16,000
	152,600
Total Assets	1,112,600
Equity and Liabilities	
Equity shares (200,000 + 15,000) (W8)	215,000
Share premium (351,000 + 15,000) (W8)	366,000
Retained earnings (W5)	199,188
	780,188
Non-controlling interest (W6)	32,512
	812,700
Non-current Liabilities	
15% Loan notes (50,000 + 30,000)	80,000
Deferred tax (30,000 + 20,000 + 2,550) (W9)	52,550
Deferred consideration (23,500 + 2,350) (W5)	25,850
	158,400
Current Liabilities	
Trade payables (24,000 + 32,000 – 2,000 (W7)	54,000
Contingent consideration	6,500
Taxation (23,000 + 19,000)	42,000
Bank overdraft	39,000
	141,500
Total Equity and Liabilities	1,112,600

(b) IFRS 3 Business Combinations requires that all business combinations must be accounted for using the Acquisition Accounting Method. Acquisition accounting requires that the acquirer in a combination must recognize the identifiable assets and liabilities acquired with the acquiree entity at their fair values. Any difference between the aggregate of the cost of acquisition and the value of non-controlling on their initial measurement, and the fair value of identifiable net assets acquired must be recognized as consolidation goodwill.

In general, any asset or liability acquired with an entity whose fair value can reliably be measured by the directors must be treated as an identifiable asset or liability of the acquired entity and hence recognized as part of the identifiable net assets acquired.

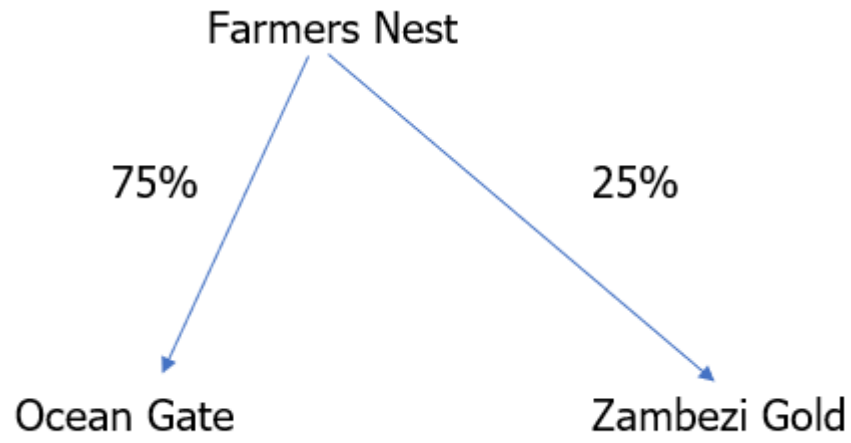
With regard to the contingent liability on acquisition of Hope, it must be emphasized in the first instance that the IAS 37 recognition criteria is different from that in IFRS 3. The contingent liability was not recognized by Hope in its separate financial statements because according to IAS 37, it is not probable that economic benefits would be transferred. In respect of IFRS 3, it is only enough that the directors could reliably measure the fair value of the contingency for it to be recognized.

The contingency would therefore be recognized as being among the identifiable net assets of Hope on its acquisition by Peace. It would initially be measured at its fair value of K2.2 million on the date of acquisition. This would give rise to a fair value loss on liabilities (increasing liabilities) and hence a reduction in the fair value of net assets acquired. The overall effect would be to increase the goodwill on acquisition and a potential increase on post-acquisition profits from Hope. Any changes in the contingent liability subsequently would be reported in profit or loss.

Workings

(1) Group structure

Farmers Nest (37.5million/50 million) = 75% in Ocean Gate, NCI 25%;
Farmers Nest (10 million/40 million) = 25% in Zambezi Gold



(2) Net assets table of Subsidiary

	At acquisition date	At reporting date	Movement (post – acquisition)
	K'000	K'000	K'000
Equity shares	100,000	100,000	Nil
Share premium	15,000	15,000	Nil
Retained earnings	75,500	65,000	(10,500)
Fair value adjustments			
Land	4,000	4,000	Nil
Buildings	6,000	6,000	Nil
Dep on FV (6,000/4 years)		(1,500)	(1,500)
Deferred tax (10,000 x 30%)			
(10,000 – 1,500) x 30%	(3,000)	(2,550)	450
Unrealized profits (42,000 x 25/125)	---------	(8,400)	(8,400)
	197,500	177,550	(19,950)

(3) Goodwill @ acquisition

Fair value of consideration:	K'000
Share exchange (K100,000/K2 x 75% x 2/10 x K4)	30,000
Deferred consideration	23,500
Contingent consideration	6,500
	60,000
NCI value (K100,000/K2 x 25% x K3)	37,500
	97,500
Fair value of net assets at acquisition	(197,500)
Bargain purchase	(100,000)

(4) Investment in Associate

	K'000
Cost of investment (10,000 shares x K5)	50,000
Share of post-acquisition profits (14,000 – 4,000) x 25%	2,500
Impairment loss	(1,000)
	51,500

(5) Group Retained Earnings

	K
Farmers Nest	215,000
Share of post-acquisition profits:	
Ocean Gate (19,950 x 75%)	(14,962)
Zambezi Gold (14,000 – 4,000) x 25%	2,500
Due diligence costs	(100,000)
Unwinding discount on deferred consideration (K23,500 x 10%)	(2,350)
Impairment of investment in Zambezi Gold	(1,000)
Bargain purchase (W3)	100,000
	199,188

(6) Non-controlling interest

	K'000
NCI value at acquisition (W3)	37,500
Share of post-acquisition loss (19,950 x 25%)	(4,988)
	32,512

(7) Inter-company debt

Intra-group debts are not consolidated; therefore, they should be eliminated from consolidated statement of financial position as follows:

Cr Receivables	3,000
Dr Payable	2,000
Dr Bank	1,000

(8) Share exchange consideration:

The share exchange consideration has not been recorded in the separate financial statements of Farmers Nest. Therefore, the transaction should be recorded to complete the double entry as follows:

Cr Equity shares (at the nominal value) 7,500 shares @ K2 = 15,000.

Cr Share premium (with the premium) 30,000-15,000 = 15,000

(9) Fair value adjustment schedule (Analysis of Reserves)

	At acquisition date	At reporting date	Post-acquisition date
	K'000	K'000	K'000
Land	4,000	4,000	
Buildings	6,000	6,000	
Depreciation (6,000/4)	Nill	(1,500)	(1,500)
	10,000	8,500	(1,500)
Deferred tax at 30%	(3,000)	(2,550)	450

SOLUTION TWO

(a) **STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME FOR THE YEAR ENDED 31 DECEMBER 2024**

	K'000
Revenue (K377,600 – K5,000) (W1)	372,600
Cost of Sales (W2)	(197,140)
Gross Profit	175,460
Distribution Costs	(20,290)
Administrative Expenses (36,200+4,000)	(40,200)
Operating Profit	114,970
Finance Costs (10,000 x 12%)	(1,200)
Profit Before Tax	113,770
Income Tax Income (W3)	750
Profit for the Year	114,520
Other Comprehensive Income	
Loss on revaluation (W4)	(8,000)
Total Comprehensive Income for the Year	106,520

(b) **STATEMENT OF CHANGES IN EQUITY FOR THE YEAR ENDED 31 DECEMBER 2024**

	Share Capital	Retained Earnings	Revaluation Reserve	Total Equity
	K'000	K'000	K'000	K'000
Balances at 1.1.2024	20,000	45,320	10,000	75,320
Total CI for the year	-	114,520	(8,000)	106,520
Dividends	-	(5,200)	-	(5,200)
Balances at 31.12.2024	20,000	154,640	2,000	176,640

(c) **STATEMENT OF FINANCIAL POSITION AS AT 31 DECEMBER 2024**

Assets	K'000	K'000
Non-current Assets		
Property, Plant and Equipment (W4)		161,500
		161,500
Current		
Inventory (W2)	24,000	
Trade Receivables	53,516	
Bank	14,874	
		92,390
Total Assets		253,890
Equity and Liabilities		
Share Capital (K1 Shares)		20,000
Retained Earning		154,640
Revaluation Reserve		2,000
Total Equity		176,640

Non-current liabilities		
Deferred revenue (W1)	2,500	
Deferred Tax (15,000 x 30%)	4,500	
12% Preference shares	10,000	
		17,000
Current Liabilities		
Trade Payables	47,800	
Deferred revenue	2,500	
Provision	4,000	
Current Tax	5,950	
		60,250
Total Equity and Liabilities		253,890

Workings

(1) Revenue

The revenue relating to the servicing contract should only be recognized when the services are rendered (performance obligations are satisfied) in accordance with IFRS 15 – Revenue from Contracts with Customers. Therefore, the revenue relating to the services for the remaining two (2) years should be deferred.

The amount to be deferred: K6,000 x 125/100 or [K6,000 + (K6,000 x 25%)] = K7,500 x 2/3 = K5,000.

The K5,000 should deducted from revenue for the year as it has not yet been earned. Of this amount, K2,500 should be recognized under current liabilities with the remaining K2,500 recognised under current liabilities.

(2) Cost of sales

				K'000
Opening inventory				28,440
Purchases				175,200
Closing inventory:				
Given amount			28,400	
Damaged inventory at cost		6,400		
Damaged inventory at NRV	(5,000-2,100-900)	2,000		
			(4,400)	(24,000)
Plant depreciation	(80,000-20,000-10,000)*20%			10,000
Property depreciation	(140,000/40)			3,500
Loss on disposal of plant	(10,000 – 6,000)			4,000
				197,140

(3) Income taxes

		K'000
Provision for the tax liability on current year profits		5,950
Over provision for last year's tax		(6,200)
Increase/(decrease in the deferred tax liability	(30%*15,000-5,000)	(500)

Income tax credit (income)	(750)

(4) Property, plant and equipment

	Property	Plant & Machinery	Total PPE
	K'000	K'000	K'000
Cost/Valuation at 1 January 2024	140,000	80,000	220,000
Accumulated depreciation at 1 January	(7,000)	(20,000)	(27,000)
NBV at 1 January 2024	133,000	60,000	193,000
Disposals	-	(10,000)	(10,000)
	133,000	50,000	183,000
Depreciation for the year (W2)	(3,500)	(10,000)	(13,500)
NBV at 31 December 2024	129,500	40,000	169,500
Fair value loss (given in the question)	(8,000)	-	(8,000)
Revalued amount (Fair value) – 31 December	121,500	40,000	161,500

SOLUTION THREE

(a) In general, all financial assets are classified as Fair Value Through Profit or Loss (FVTPL) items. However, the following exceptions may apply:

(i) Equity instrument assets not for trading can be classified as FVTOCI upon making an irrevocable election to that effect.

(ii) Debt instrument assets with contractual terms that give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding must be classified as:

(1) Amortised cost items where the business model is to hold the assets till maturity; or
(2) FVTOCI items where the business model is to hold the assets till maturity or sell before maturity.

Assets must be classified at initial measurement and reclassification is only allowed if there is a change in the business model.

(b) Transaction one (1)

The GRZ bond are a debt instrument asset with terms that rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding. Ndekazi's business model is to hold the asset till maturity. The bonds will therefore be classified as an amortised cost asset.

The investment will initially be measured at fair value including transaction costs. Subsequently, the asset will be measured at amortised cost with finance income reported in profit or loss.

Amounts to report in the financial statements for the year to 31 December 2024 will be as follows:

		K'000
Initial carrying amount (1 million*K100+K5million)		105,000
Finance income to report in PL for y/e 31.12.2024	(7.27%*105000)	7,634
Cash received on 31.12.2024	(10%*K100*1m)	(10,000)
Carrying amount to SFP at 31.12.2024		102,634

As at 31 December 2024, the investment in bonds should be measured at K102,634,000 in the statement of financial position, with K7,634,000 reported in the statement of profit or loss as income.

Transaction two (2)

The bonds liability will be classified as an amortised cost item in line with the general classification for liabilities in accordance with IFRS 9. They will therefore be initially measured at fair value less transaction costs. Subsequently, the bonds will be measured at amortised cost with the finance cost reported in profit or loss.

Amounts to report in the financial statements for the year to 31 December 2024 will be as follows:

		K'000
Initial carrying amount at 1.6.2024	(5m *K1-K100,000)	4,900
Finance income to report in Pl for y/e 31.12.2024	(15.95%*4900)*7/12	456
Cash received		-
Carrying amount to report in SFP at 31.12.2024		5,356

SOLUTION FOUR

(a) **STATEMENT OF CASH FLOWS FOR YEAR ENDED 31 MARCH 2024**

Cash flows from operating activities	K	K
profit before tax		2,152
Adjustments:		
Depreciation		342
Amortisation (W1)		360
Fair value gain on investment property		(200)
Warranty provision		100
Interest expense		90
Profit on disposal of assets (660 – 618)		(42)
Profit before working capital changes		2,802
Increase in inventories (2,160 – 1,362)		(798)
Decrease in receivables (1,644 – 1,944)		300
Decrease in payables (1,644 – 2,112)		(468)
Cash from operations		1,836
Interest paid (W3)		(60)
Income tax paid (W4)		(1,536)
Net cash from operating activities		240
Cash flows from investing activities		
Development expenditure (W1)	(1,140)	
Purchase of PPE (W2)	(1,152)	
Proceeds from disposal of assets	660	
Net cash used in investing activities		(1,632)
Cash flows from financing activities		
Proceeds from issue of shares (W5)	1,800	
Proceeds from issue of loan notes (900 – 600)	300	
Repayment of lease liabilities (W6)	(186)	
Dividends paid (W7)	(936)	
Net cash from financing activities		978
Decrease in cash & cash equivalents during the year		(414)
Cash & cash equivalents at beginning of the year (W8)		654
Cash & cash equivalents at end of the year		240

(b) The following are the limitations of ratio analysis:

(i) Ratios are only as reliable as the financial information from which they are derived.

(ii) Inflation can distort the information. Inflation adjustments need to be made.

(iii) It can be difficult to find a suitable benchmark with which to compare the ratios, different companies operate in different industries each having different environmental conditions which mean a comparison of two companies from different industries might be misleading.

(iv) Ratio analysis explains relationships between past or historic information while users are more concerned about current and future information.

(v) Financial accounting information is affected by estimates and assumptions. Accounting standards allow different accounting policies, which makes it difficult to compare ratios with the ratios of other companies.

(vi) Interpretation requires thought and analysis. Ratios have to be compared with other rations; in themselves, they are meaningless. Interpretation needs careful analysis

(vii) Different accounting periods may affect effective comparison of companies whose ratios have been computed.

(viii) Different components are used to calculate ratios, rendering comparison inappropriate.

Workings

(1) Development expenditure

	K		K
Balance b/f	960	Amortisation (balancing fig)	360
Additions (cash paid)	1,140	Balance c/f	1,740
	2,100		2,100

(2) Property, plant & equipment

	K		K
Balance b/f	1,822	Disposals	618
Revaluation	600	Depreciation	342
Right of Use Asset	336		
Additions (balancing fig)	1,152	Balance c/f	2,950
	3,910		3,910

(3) Interest payable

	K		K
Interest paid (balancing fig)	60	Balance b/f	0
Balance c/f	30	Profit or loss (Finance costs)	90
	90		90

(4) Taxation

	K		K
Tax paid (balancing fig)	1,536	Balance b/f: Deferred	270
Balance c/f: Deferred	288	Current	918
Current	336	Income tax expense (P&L)	972
	2,160		2,160

(5) Proceeds from issue of shares

Share capital account

	K		K
		Balance b/f	2,400
		Bonus issue (2,400 x 2/16)	300
Balance c/f	3,000	Cash issue (balancing fig)	300
	3,000		3,000

Cash proceeds: increase in share premium (2,100 – 600) = 1,500 + 300 = 1800

(6) Lease liability

	K		K
Lease liabilities paid (bal fig)	186	Balance b/f (480 + 72)	552
Balance c/f (600 + 102)	702	Additional lease liability	336
	888		888

(7) Retained earnings

	K		K
Bonus issue (2,400 x 2/16)	300	Balance b/f	1,530
Dividends paid (balancing fig)	936	Profit for the year	1,180
Balance c/f	1,522	Excess depreciation (342 – 294)	48
	2,758		2,758

(8) Analysis of cash & cash equivalents

	31 March 2024	31 March 2024
	K	K
Short-term investments	858	276
Cash	174	702
Bank overdraft	(792)	(324)
Net cash & cash equivalents	240	654

SOLUTION FIVE

(a) The applicable accounting standard that gives guidance on the accounting policies to follow in accounting for these transactions is IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors.

IAS 8 requires that an entity must follow the policies permitted by the relevant IFRS/IASs in accounting for transactions. In the absence of an applicable IFRS/IAS, the entity must refer to the general principles in the conceptual framework in deciding on the appropriate accounting treatment. Accounting standards of other bodies may also be considered in that case.

Once the entity has adopted particular accounting treatments/policies, IAS 8 requires that those policies should be applied consistently from period to period and changes are normally not allowed. However, a change in accounting policy can be made where it is required by specific IFRS/IASs (eg upon revision of an existing standard or upon publication of a new standard) or where the nature of an entity's transactions have changed and the new policy improves the fair presentation of transactions. Where there is a change in an accounting policy, IAS 8 requires that the new policy must be applied retrospectively to ensure comparability.

(b) IAS 8 requires that prior period errors are corrected retrospectively by adjusting opening balances in the year of correction for the cumulative effect of the error and by restating the previous amounts (comparatives) as reported in the period of correction.

In this case, the directors made an error in preparing financial statements for the year to 31 December 2023 by not correctly applying IFRS 15. The delivery of the plant and the commitment to service the same constituted two performance obligations in accordance with IFRS 15. The total invoice amount (transaction price) must have been allocated to the two performance obligations and the amount of each obligation recognised as revenue at the point the obligation was met or over the periods the obligation was met. In this case, only the amount allocated to the delivery of the plant should have been recognised at date of delivery. The amount attributable to the servicing was supposed to be recognised over the three years the plant had to be serviced (straight line basis).

IAS 8 requires that prior year errors be accounted for retrospectively with an adjustment to opening retained earnings and the affected asset or liability.

With the above in mind, of the total invoice amount, Hunga should have recognised a deferred revenue liability at 31 December 2023 equal to K0.4 million (ie 0.6*2/3) in respect of the servicing for the next 2 years. The required entries to correct a past error as at 1.1.2024 are therefore:

	K'000
Dr Retained earnings	400
Cr Deferred Revenue liability	400

In addition, revenue for the year to 31 December 2023 as a comparative in the financial statements for the year to 31 December 2024 would be reduced by K0.4 million.

In the year to 31 December 2024, Hunga must report revenue in respect of servicing for that year equal to K0.2 million (ie 0.6/3). The required entries are to debit deferred revenue and credit revenue. The deferred revenue liability to report in the statement of financial position at 31 December 2024 would be K0.2 million (ie 0.6*1/3). This would be recognised as revenue upon servicing in the third year (ie y/e 31 December 2025).

(c) The conceptual framework is a general body of knowledge that underpins accounting practice in the preparation of financial statements. It is different from specific accounting standards in that it does not prescribe accounting treatment for particular transactions.

However, it is a point of reference in formulating a set of consistent and principles based accounting standards and, in applying those accounting standards. It describes the objective of, and the concepts for, general purpose financial reporting.

The purposes of the framework include the following:

i) It assists the International Accounting Standards Board to develop IFRS Standards that are based on consistent concepts;

ii) It assists preparers to develop consistent accounting policies when no Standard applies to a particular transaction or other event, or when a Standard allows a choice of accounting policy; and

iii) It assists all parties to understand and interpret the Standards.

The conceptual framework neither not prescribes accounting treatment of specific transactions nor overrides specific accounting standards.

END OF SUGGESTED SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA APPLICATION ADVANCED DIPLOMA IN ACCOUNTANCY

CA 2.2: MANAGEMENT ACCOUNTING

TUESDAY 9 SEPTEMBER 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)

Osias Ltd (O ltd) is an oil marketing company involved in the buying and selling of fuel in Lusaka. O Ltd runs a fuel station and sells three types of fuel, namely, petrol, diesel and kerosine. O Ltd maintains three critical control levels of fuel and these are reorder level, minimum level and maximum level.

For the year 2025, O Ltd anticipates the following in relation to its fuels for sell:

Product	Petrol	Diesel	Kerosine
Opening inventory (in litres)	20,000	30,000	5,000
Monthly Sales:			
Maximum	26,000	35,000	4,000
Average	23,000	30,000	3,000
Minimum	20,000	25,000	2,000
Lead time for delivery of fuels (months):			
Maximum	3	3	3
Average	2	2	2
Minimum	1	1	1
Reorder quantities (in litres)	84,000	105,000	12,500
Purchase price per litre in Kwacha	K27	K25	K24

O Ltd anticipates to have fuel quantities in inventory at the end of the year equivalent to the minimum inventory levels.

Given that the prices of the various types of fuels are determined on a monthly basis by the Energy Regulation Board (ERB), O Ltd has decided to use an anticipated average price for the whole year for the purpose of budgeting. Further, O Ltd has opted to use a conservative approach in budgeting for its income for the year and hence will use the minimum anticipated levels of sales. The anticipated average selling prices are:

Product	Petrol	Diesel	Kerosine
Selling price per litre	K33.00	K30.00	K28.00

O Ltd completed the construction of a shop where it intends to sell fast foods. During one of the management meetings, it was reported that O Ltd had received an offer from Kik Ltd (K Ltd) who offered to hire the shop. K Ltd specializes in the running shops in Lusaka and was offering to pay monthly rental fee of K30,000 to Oasis Ltd. The Management requested you as the Management Accountant to provide information that would enable Management make a decision as to whether to run the Kiosk or rent it out to K Ltd. You have gathered the following information in relation to the two options under consideration:

If Oasis Ltd runs the shop, annuals sales are anticipated to be K1,200,000 and O Ltd is expected to incur the following costs:

(i) Cost of sales of 70% of annual sales

(ii) Salaries for the shop ales ladies K72,000

(iii) Security charges K20,000

(iv) Depreciation of shop buildings and equipment K12,000

(v) Hire of popcorn making machine at K750 per month.

If O Ltd leases the shop to K Ltd, O Ltd will be required to pay redundancy costs equal to one third of the annual salaries for the sales ladies as only one of the three sales ladies will be taken up by K Ltd. O Ltd will continue paying 20% of the total annual security charges. K Ltd will not require to hire the popcorn making machine as O Ltd has its own machine.

Required:

(a) Explain why the three (3) levels of reorder level, minimum level and maximum level are critical inventory control levels. (3 marks)

(b) Calculate the following inventory levels for each product:

(i) Reorder level (3 marks)

(ii) Maximum level (3 marks)

(c) Prepare the following budgets for the year in Kwacha:

(i) Sales Budget. (4 marks)

(ii) Purchases budget (10 marks)

(d) On the basis of your purchases budget in (c) above, calculate the number of orders that O Ltd will make for each product in a year. (3 marks)

(e) Using the information in the scenario,

(i) Advise if Oasis Ltd should run or lease the shop to K Ltd, clearly showing the calculations upon which the advice is based.

(ii) Give an explanation for not including any of the costs in the calculations.

(14 marks)

[Total: 40 Marks]

SECTION B

There are four (4) Optional/Scenario questions in this section.

Attempt any THREE (3) questions.

QUESTION TWO

Top Notch Ltd (TN Ltd) is a construction company based in Lusaka. TN Ltd has been involved in the construction of bridges, schools and hospitals. During the year 2024, the company commenced construction of a school (Contract number TN 2024/3) in Chisamba District of Central province. At the end of the year, the construction had reached an advanced stage enabling the company to be in a position to estimate the overall outcome of the contract.

The details of the contract for the year ended 31 December 2024 were as follows:

	K'000
Materials purchased specifically for the school site	88,000
Materials issued from stores	7,500
Materials returned from the site	1,500
Direct Site Wages	28,000
Direct site expenses	4,000
Cost of Machinery sent to site (note below)	8,600
Machine hire	1,200
Architects fees	2,600
Sub contract work charges	12,000

Head Office Overheads are charged at 15% of direct Site wages.

Note: The accumulated depreciation for the machinery as at start of contract was K1,600,000.

At end of the year, the following valuations were recorded:

	K'000
Materials on site	2,500
Machinery on site (accumulated depreciation at end of year was K2, 800, 000)	
Cost of work done but not yet certified	7,400
Prepayment for expenses	200
Accruals	700

Required:

(a) Explain three (3) specific factors to be considered when deciding the extent of profit to be taken on uncompleted contracts. (3 marks)

(b) On the basis of the factors in (a) above, would you recommend that TNLtd takes any profit from the contract as at 31 December 2024. Justify your recommendation. (2 marks)

(c) Prepare Contract No. 2024/3 Account for the year 2024 clearly showing the cost of certified work carried forward. (10 marks)

(d) Explain the term "responsibility accounting" and how TN Ltd would apply the concepts of cost centre and profit centre under responsibility accounting in its business operations. (5 marks)

[Total: 20 Marks]

QUESTION THREE

Galies Metal Fabrication Enterprise (GMFE) operates a workshop in the outskirts of town. It manufactures and sells three metal stools with the following selling prices and variable costs:

Type of stool	Office stool	Home stool	Bar stool
	K/unit	K/unit	K/unit
Selling price	450.00	367.50	600.00
Variable cost	180.00	250.50	390.00

The company is considering expenditure on advertising and promotion of the office stool. It is hoped that such expenditure, together with a reduction in the selling price of the product, would increase sales.

The existing annual sales volume of the three products are:

- Office stool : 4,600 units
- Home stool : 10,000 units
- Bar stools: 3,800 units

If K30,000 per annum was to be invested in advertising and sales promotion, sales of Office stool at reduced selling prices would be expected to be:

5,900 units at K412.50 per unit or 6,500 units at K382.50 per unit

Annual fixed costs are currently K1,710,000 per annum.

Required:

(a) Calculate the current breakeven sales revenue of the business. (4 marks)

(b) Draw a multi-product profit/volume graph, if the advertising and sales promotion does not go head. (10 marks)

(c) Advise the management of GMFE as to whether the expenditure on advertising and promotion, together with selling price reduction, should be introduced on the Office stool. (6 marks)

[Total: 20 Marks]

QUESTION FOUR

Mukanaka Furniture Enterprises (MFE) operates a furniture company. The owner, Mr. Salati Mapulanga, recently added a mukwa cabinet product to his furniture range. The standard specification for each cabinet contains the following information:

Materials	K
Mukwa: 12 kg at K2.8 per kg	33.6
Wood varnish: 1 litre at K3 per litre	3.00
Labour: 16 hours at K6 per hour	96.00

During the month of May 2025, 620 cabinets were made.

Actual costs were:
Materials
Mukwa: 9,000 kg costing K22,500
Wood varnish: 580 litres costing K2,030
Labour: 10,400 hours costing K72,800
Abnormal idle time was 800 hours.

Required:

(a) (i) Calculate the materials price and usage variances for both materials. (6 marks)

(ii) Calculate the labour rate, efficiency and idle time variances. (4 marks)

(iii) Suggest three (3) possible causes of the mukwa materials variances. Refer to the variances calculated in (a) (i) above. (3 marks)

The following data relates to another product of MFE, product CT, namely, a coffee table. The material content for period 2 was:

Budget data
Production units 5,500 CT units
Standard material content: 1.5 kg per unit at K8 per kg.

Actual results
Production units: 5,000CT units
Materials purchased and used 16,000 kg at K9.6 per kg

With the benefit of hindsight the standard price of the raw material purchased in period 2 Should have been K10 per kg.

Required:

(b) Calculate the materials planning variance and materials operational price variance. (4 marks)

(c) Explain when a materials mix variance should be calculated. When is the mix variance favourable or adverse? (3 marks)

[Total: 20 Marks]

QUESTION FIVE

Katunjila Ltd (K Ltd) is a recently established manufacturing company, which operates in a very competitive environment. The company manufactures various products, including complimentary ones such as knives and folks. Some of these products have short life while others have long life. The production costs for the company are generally affected by the increase in inflation. The company has recruited new graduates in management who are very enthusiastic in achieving the annual set objectives and also ensure the company remains competitive on the market. In order to achieve this, the team has set up a number of systems to provide them with information, including a management accounting system. They understand that the successful management of any organisation depends on data and information.

The information from the various systems put in place will help the management team in their various management roles. The management is aware of the fact that in making financial decisions, managers mostly rely on quantified relevant factors or information. However, not all factors needed in decision making are quantifiable. Of equal importance to quantifiable factors in decision making are the non-quantifiable factors. Non-quantifiable factors should always be considered alongside the quantitative data in a decision.

During the induction session of the new management team, the Management Accountant explained to the team that some of the key management planning tools they will need to have are annual budgets for their respective departments. He explained to the management team that budgets should be realistic and be based, to some extent, on forecasts prepared. He also explained the limitations that budgets have and hence advised that management ought to be aware of them and try to establish some control over the conditions that will apply in the future in order to ensure that the budgets are realistic.

During the same induction session, the Management Accountant gave a detailed explanation on life cycle costing and pricing in comparison to the traditional costing systems, including the benefits of the life cycle costing system, and how it can be applied in K Ltd.

Required:

(a) Explain the purpose of Management Information to the Managers and give three (3) reasons why K Ltd would require the management accounting system. (5 marks)

(b) Explain how the following non-quantifiable factors may influence decision making in K Ltd:

(i) Product demand
(ii) Inflation
(iii) Legal constraints
(iv) Competitors

(4 marks)

(c) Distinguish between a forecast and a budget and explain any three (3) limitations of budgeting that the Management Accountant of Katunjila Ltd included in his explanation. (5 marks)

(d) Explain the difference between the traditional costing systems and life cycle costing, giving any four (4) benefits that Katunjila Ltd may obtain from the use of the life cycle costing. (6 marks)

[Total: 20 Marks]

END OF PAPER

CA 2.2 MANAGEMENT ACCOUNTING

SUGGESTED SOLUTIONS

SOLUTION ONE

(a) **Reasons Why the Reorder level, maximum level and minimum level are critical inventory levels**

(i) Reorder level = The level is critical because it guides the organisation when to place an order to replenish the goods in inventory. If the goods are not ordered when inventory reaches the reorder level, then the organisation risks running out of stock of goods. Running out of inventory is not good for the reputation of the company like Oasis Ltd.

(ii) Minimum level = the level is critical for the organisation as it provides the danger or signal point for possible running out of inventory.

(iii) Maximum level = the level is critical for the organisation as it acts as a warning level to signal to management that inventories are reaching a potentially wasteful level.

(b) **Calculation of the Reorder level and Maximum inventory levels**

(i) Reorder level = maximum consumption x maximum lead time

Petrol = 26, 000 x 3 = **78, 000 litres**

Diesel = 35, 000 x 3 = **105, 000 litres**

Kerosine = 4, 000 x 3 = **12, 000 litres**

(ii) Maximum level = Reorder level + Reorder quantity – (minimum consumption x minimum lead time)

Petrol = 78, 000 + 84, 000 – (20, 000 x 1) = 162, 000 – 20, 000 = **142, 000 litres**

Diesel = 105, 000 + 105, 000 – (25, 000 x 1) = 210, 000 – 25, 000 = **185, 000 litres**

Kerosine = 12, 000 + 12, 500 – (2, 000 x 1) = 24, 500 – 2, 000 = **22, 500 litres**

(c) **Sales and Purchases Budgets for the year**

(i) Sales Budget

	Product	**Monthly sales**	**Annual Sales**	**Price/Litre**	**Total**
Petrol	20, 000 x 12 =	240, 000	K33	7, 920, 000	
Diesel	25, 000 x 12 =	300, 000	K30	9, 000, 000	
Kerosine	2, 000x 12 =	K24, 000	K28	672, 000	
Total Sales Budget				**7, 592, 000**	

(iii) Purchases Budget

Products	**Petrol**	**Diesel**	**Kerosine**
Sales in Litres	240, 000	300, 000	24, 000
Add: closing inventory (w1)	32, 000	45, 000	6, 000
Total Litres required	272, 000	345, 000	30, 000
Less: Opening Inventory	20, 000	30, 000	5, 000
Total Litres to be purchased	252, 000	315, 000	25, 000
X Purchase price per litre	27	25	24
Purchases Budget per product	**6, 804, 000**	**7, 875, 000**	**600, 000**

Total Purchases Budget(6,804, 000,+7,875, 000 + 600, 000) =K15,279, 000

Working

1. Expected closing inventory (Equivalent to the minimum inventory levels)

Minimum inventory level = reorder level – (average usage × average lead time)

Petrol = 78, 000 – (23, 000 x 2) = 78, 000 – 46, 000 = 32, 000 litres
Diesel = 105, 000 – (30, 000 x 2) = 105, 000 – 60, 000 = 45, 000 litres
Kerosine = 12, 000 – (3, 000 x 2) = 12, 000 – 6, 000 = 6, 000 litres

(d) **Number of orders per product**

Number of orders per product = total litres to be purchased ÷ Reorder quantity

Petrol = 252, 000 litres÷ 84, 000 litres = **3 orders**
Diesel = 315, 000 litres÷ 105, 000 litres = **3 orders**
Kerosine = 25, 000 litres÷ 12, 500 litres = **2 orders**

(e) **Run or Lease the Shop**

(i)

The relevant information in making the decision are the differential profits from the two options:

The differential profits from the two options are:

Run Shop	**K**		**Lease Shop** **K**
Revenue	1, 200, 000	(K30 000 x 12)	360 000
Variable cost: ,			
Cost of sales (70% x K1 200 000)	84,0 000		0
Contribution	360, 000		360, 000
Directly attributable Fixed costs:			
Salaries for sales ladies/redundancy costs	72, 000	(1/3 x K72 000)	24, 000
Hire of popcorn making machine (12 x 750)	9, 000		0
Security charges	20, 000	(20% X K20 000)	4, 000
Profit	259, 000		332, 000

Differential profits = K332, 000 – K259, 000 =**K73, 000**

Advice

The company should accept the offer from K Ltd and lease out the shop as the profit will be higher by K64, 000 as opposed to running the shop.

(ii) Costs not included in the calculation

Depreciation of shop buildings and equipment.

The depreciation cost for the shop buildings and equipment has not been included in the calculation of the differential profits because the cost is irrelevant to the decision being considered. This is so because the depreciation charge will still be allocated regardless of the decision taken by Oasis Ltd.

SOLUTION TWO

(a) **Specific factors to be considered when deciding the extent of profit to be taken on uncompleted contracts a**re:

- The successful outcome of the contract should be certain before any interim profit is taken
- Any profits should only be taken in proportion to the work completed to date on the contract
- Any anticipated loss on the contract should be provided for in full as soon as it is recognised

(b) **Recommendation to take profit from the contract as at 31st December 2024**

The key factor on deciding whether to take any profit from uncompleted contract is being able to determine the successful outcome of the contract. In the case of Top Notch Ltd, we have been advised that the construction had reached an advanced stage enabling the company to be in a position to estimate the overall outcome of the contract. Given this status, it is therefore recommended that Top Notch Ltd can take an interim profit as at the end of the year 2024.

(c) **Top Notch Ltd**
Contract No. 2024/3 Account for the year 2024

	K'000			**K'000**
Materials purchased	88,000		Materials returned	1,500
Materials issued from stores	7, 500		Materials on site c/d	2, 500
Direct site wages	28, 000		Machinery c/f (8,600 – 2,800)	5, 800
Direct site expenses	4, 000		Prepayments c/f	200
Machinery sent to site (8, 600 – 1,600)	7, 000		Cost of work not certified c/f	7,400
Machine hire	1, 200		Cost of work certified (bal.)	137,800
Architects fees	2, 600			
Sub contract work charges	12, 000			
Head office overhead (15% x 28, 000)	4 ,200			
Accruals c/d	700			
	155, 200			**155, 200**

(d) **Responsibility accounting and application in Top Notch Ltd**

Responsibility accounting is a method of budgeting and comparing actual costs to budgets for each of the responsibility centres.

A cost centre and profit centre are types of responsibility centre under responsibility accounting. A cost centre is an area of the business for which costs can be ascertained, while a profit centre is an area of the business for which both revenues and costs can be ascertained. In case of Top Notch Ltd, each contract can be treated as cost centre where costs for a specific contract can be ascertained and also as a profit centre where costs and revenue for each contract can be established and overall profit or loss of each contract determined.

SOLUTION THREE

(a) Breakeven revenue

	Sales volume	Selling price Per unit	VC Per unit	Sales revenue	Contribution per unit	Total Contribution	C/S ratio
		K	K	K'000	K	K'000	
Office	4,600	450.00	180	2,070	270	1,242	0.60
Home	10,000	367.50	250.5	3,675	117	1,170	0.32
Bar	3,800	600.00	390	2,280	210	798	0.35
				8,025		3,210	

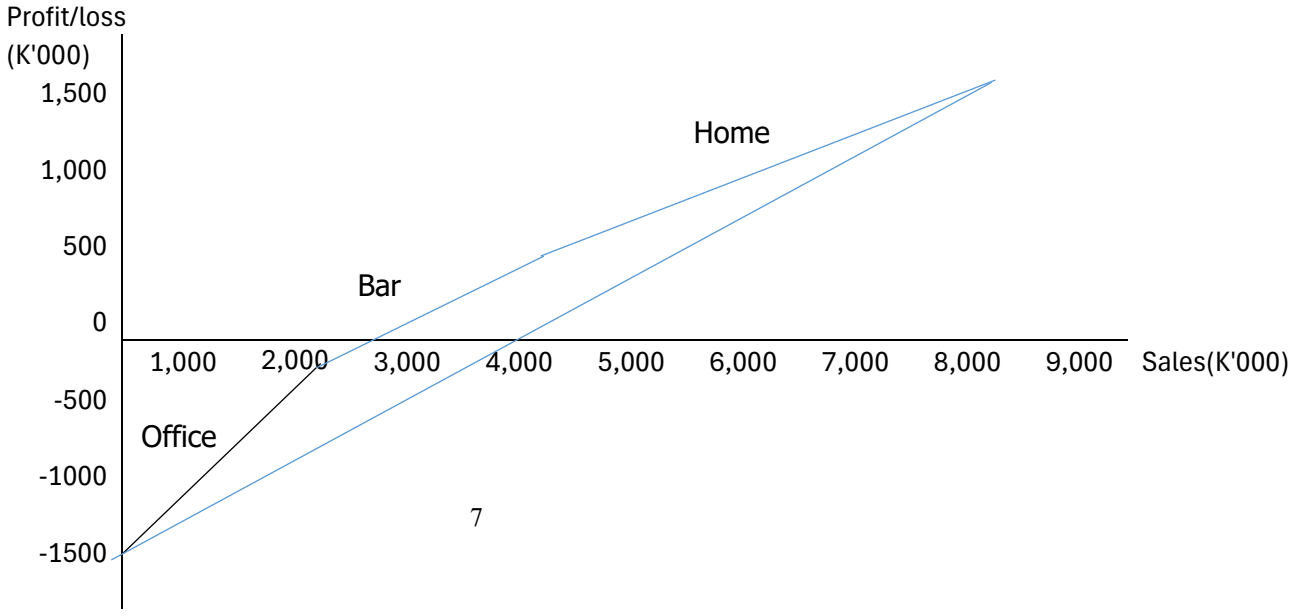
Sales Contribution Ratio = 3,210/8,025 = 0.4 = 40%

Breakeven revenue sales = Fixed costs/ contribution to sales ratio

K1,710,000/ 0.4 = K4,275,000

(b) Profit – Volume Chart

Product	Revenue	Cumulative revenue	Contribution	Cumulative profit/(loss)
	(K'000)	(K'000)	(K'000)	(K'000)
		0	0	(1,710)
Office	2,070	2,070	1,242	(468)
Bar	2,280	4,350	798	330
Home	3,675	8,025	1,170	1,500



(C) Office stool

	K'000	K'000
Current contribution from Office stool	1,242	1,242
Contribution from:		
5,900 units @ (K412.50 - K180)	1,372	
6,500 units @ (K382.50 – K180)		1,316
Increase in contribution	130	74
Less advertising costs	(30)	(30)
Net increase (decrease) in contribution	100	44

It appears worthwhile to spend K30,000 on advertising and reduce the sales price to K412.50 on the assumption that sales volume will increase to 5,900 units.

SOLUTION FOUR

(a) (i) Mukwa price variance Mukwa usage variance

	K			Kg
Standard 9,000 x K2.8	25,200		620 x 12	7,440
Actual	22,500			9,000
	2,700(F)			1,560(A)
				x
				K2.8
	(*1.5 marks*)		*(1.5 marks)*	K4,368(A)

(ii) Varnish price variance Varnish usage variance

	K			Litres
Standard 580 x K3	1,740		620 x 1	620
Actual	2,030			580
	290(A)			40(F)
				x
				K3
	(*1.5 marks*)		*(1.5 marks)*	K120(F)

(iii) Labour Rate variance Labour Efficiency variance

	K			Hours
Standard 10,400 x K6	62,400		620 x 16	9,920
Actual	72,800		Actual	9,600
	10,400(A)			320(F)
				x
				K6
	(*1.5 marks*)		*(1.5 marks)*	K1,920(F)

Labour Idle-Time variance : 800 hrs (A) x K6 = K4,800(A)

Favourable price variance – efficient buyer paid less than standard price for the mukwa timber.
Adverse usage variance – inefficiency in production
– too much waste and scrap
– could be caused by low grade labour.
However, did the buyer purchase the mukwa timber of adequate quality?
If not, he or she has saved K2,700. But this was at the expense of K2,184 through excess wastage in the factory when raw material was used.

(b) (i)

Materials Price **Planning** Variance	K			Materials Price **Operational** variance
Revised standard cost per unit = 1.5 x K10	15		Revised standard cost 16,000 x K10	K160,000
Original standard cost per unit = 1.5 x K8	12		Actual cost 16,000 x K9.60	K153,600
	3(A)			
	x			**K6,400(F)**
	5,500 units			
	K16,500(A)			
	(2 marks)			*(2 marks)*

(ii) A materials mix variance should be calculated when a company produces a product which requires two or more ingredients.
The other requirement is that management should be able to control the ingredients in the mix.

A mix variance is favourable when more of a cheaper material is used in the mix and it is adverse when more of an expensive material is used in the mix.

SOLUTION FIVE

(a) The purpose of management information is to help managers manage resources effectively by planning, controlling operations and by allowing informed decision-making.

Katunjila Ltd would require the management accounting system to provide management with:

- Financial information on business performance
- Non-financial information on business operations
- A combination of financial and non-financial information

(b) Non-quantifiable factors in decision making are factors which might influence the eventual decisions but which have not been quantified in terms of relevant costs or benefits.

How non-quantifiable factors may influence decision making in Katunjila Ltd:

- *Demand* – a decision by Katunjila Ltd, say, to make and sell just one product rather than two of the complimentary products (such as knives and folks) may have a negative effect on customer loyalty and sales demand for the remaining product. This is because for such goods, their demand is partly influenced by the availability of the other complementary product.
- *Inflation* – Increase in inflation tends to increase the costs of products. If Katunjila Ltd was to be involved in a fixed price contract decision, then the effect of inflation will need to be considered because if not taken into account, the contract's profitability would be over-stated due to increase of costs with inflation. A non-profitable contract may end up being accepted by Katunjila Ltd if the effects of inflation is not considered.
- Legal Constraints – If Katunjila Ltd was in doubt about the legality of a proposed action, say stopping production of a product, such a decision might have to be rejected on the basis of the legal constraint.
- Competitors – in a competitive environment like the one Katunjila Ltd operates in, some decisions may stimulate a response from rival companies. For example, the decision to reduce selling prices in order to raise demand may not be successful if all competitors take similar action.

(c) A forecast is a best estimate, based on certain assumptions about the conditions that are expected to apply, while a budget is a plan of what the organisation is aiming to achieve and what it has set as a target.

Limitations of budgeting

- The further into the future the budget is for, the more unreliable it is likely to be.
- The less data available on which to base the budget forecast, the less reliable the budget.
- The pattern of trend and seasonal variations used in making the budget may not continue in the future and hence making the budget unreliable
- Random variations may upset the pattern of trend and seasonal variation.
- Certain changes, such as political and economic changes, environmental changes, technological changes and social changes, may make it difficult to forecast future events and provide accurate budgets.

(d) Traditional costing systems measure the cost of a product in each accounting period, and the profit or loss that should be reported for the product for that period, whereas life cycle costing measures the total costs of a product over its entire life.

Benefits of life cycle costing to Katunjila Ltd

- It would help management of to assess profitability over the full life of a product, and in turn help management to decide whether to develop the product, or to continue making the product.
- It can be very useful to Katunjila Ltd who develops some of the products with a relatively short life. Life cycle costing may make it possible to estimate sales volumes and prices with reasonable accuracy.
- The life cycle concept would result in management making early actions to generate more revenue or to lower costs of products than otherwise might be considered.
- It would enable management make better decisions from a more accurate and realistic assessment of revenues and costs, at least within a particular life cycle stage.
- It would encourage management of Katunjila Ltd to have longer-term thinking and forward planning, and may provide more useful information than traditional reports of historical costs and profits in each accounting period.

END OF SUGGESTED SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA APPLICATION ADVANCED DIPLOMA IN ACCOUNTANCY

CA2.3 AUDITING PRINCIPLES AND PRACTICE

THURSDAY 11 SEPTEMBER 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

Livingstone Plc. is a manufacturing company involved in the manufacture of tinned food. Its main customers are retail chain stores which it supplies on thirty (30) days credit. According to legal provisions, all tinned food should have a maximum shelf life of three (3) months from date of manufacture.

Livingstone Plc. has a contract with a chain store for the supply of tinned food on consignment basis and only invoices when third party sales have been made. The chain store leases out shelf spaces to Livingstone Plc. Livingstone Plc. employs merchandisers who are responsible for receipt and accounting for the goods. The Merchandisers make orders for supplies and are responsible for acknowledging receipt of the goods by signing the delivery notes. There is no independent confirmation by Shop Managers of the goods received. On a monthly basis, Livingstone Plc. invoices the shops based on the stock movement considering opening stock **quantity,** receipts of stocks and the closing inventory. There have been significant differences between what the shops acknowledge as the sales for the company and the amount invoiced resulting in discrepancies and disputes.

The tenure of the Board of Directors of Livingstone Plc. came to an end. A new Board of Directors has been put in place comprising executive and non-executive members. The Managing Partner of your firm has been appointed as one (1) of the board members. He holds a significant number of shares in Livingstone Plc. which he inherited from his father four (4) years ago. The newly constituted board resolved, at a recent meeting, that the external auditors will, as a separate non-assurance engagement, be required to offer tax services. The fee for the tax service will depend on the savings that will be made regarding the tax liability. This will be determined by considering the reduction in tax liability compared to the liability over the previous year.

Your firm was nominated auditors effective the current year. The nomination was made before your firm sought professional clearance from the previous auditors. Permission to communicate with the outgoing auditors was granted by management at the time of nomination. Your firm has only been in existence for five (5) years and the proposed fee level for the assurance service to Livingstone Plc. will amount to 30% of the total firm's fee income. The performance of the requested non-assurance service will increase the dependency on this client to 35%.

Inventory is a material figure in the financial statements of Livingstone Plc. A review of the purchasing and inventory systems revealed the following:

(1) The company has a purchasing department and all orders made are evidenced in writing by way of a purchase order.

(2) The purchasing department is headed by the Purchasing Manager and there are two (2) buyers that source and raise orders for goods and services. The company in the recent past experienced a high incidence of goods being returned to suppliers on account of defects in the items received.

(3) There is an increase in the number of disputed accounts payable balances between the supplier records and the balances in the payables ledger of Livingstone Plc. Majority of suppliers send copies of their monthly statements to Livingstone Plc. and these are simply filed away by the Chief Accountant.

(4) The company has a stores department under the supervision of the Stores Manager. Each inventory line has a stock card showing the movement in the inventory and the closing inventory quantity at any point in time. The stock cards are not accountable documents to enable easy replacement in the events of errors being made.

(5) Random checks by independent staff revealed a significant level of discrepancies between physical inventory and stock card inventory balances. Stores staff amend the stock card balances when discrepancies are identified without authorization.

You are Audit Senior leading the audit of the financial statements of Livingstone Plc. The audit is due to commence mid-January 2025. The inventory count was conducted on 31 December 2024. Some of your audit team members attended the count.

The members that were assigned to the main warehouse observed that there were three (3) batches of tinned foods that had 1 April 2025 as the date of manufacture and 30 June 2025 as the expiry date. This was brought to the attention of the Stores Manager who explained that there was an error in the dates. A Stores Assistant privately informed the team that the purpose of postdating the manufacturing dates is to "extend" the shelf life. This matter was brought to your attention for action and possible reporting of the matter to the regulators.
At the end of the inventory count, all your staff who attended the count were given goods of their choice amounting to K25,000 per member as complementary by the Warehouse Manager.

You intend to seek third party confirmation of the trade receivables balances which you consider material. You have been provided with a receivables age analysis which shows that a significant amount of receivables is overdue and that recent debts have been cleared before the older debts.

Required:

(a) (i) Explain the meaning of reasonable assurance. (2 marks)

(ii) Explain the role of the Board of Directors in the running of Livingstone Plc. (2 marks)

(b) Describe six (6) ethical issues that you will consider in the audit of the financial statements of Livingstone Plc. (12 marks)

(c) Explain four (4) audit risks that should be considered at the planning stage of the audit of the financial statements of Livingstone Plc. (4 marks)

(d) Suggest six (6) internal control activities for the purchases and inventory systems of Livingstone Plc. and explain the control objective for each activity. (12 marks)

(e) (i) Suggest, with justification, a suitable confirmation method that should be used in confirming trade receivables. (2 marks)

(ii) Explain the procedure that you will follow in seeking third party confirmation of the receivables balances in the financial statements of Livingstone Plc. (6 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 Manager in the audit department of Munda & Associates (Munda) responsible for planning the final audit of a new client, Kalulu Co. (Kalulu), for the year ending 30 November 2024. Kalulu specialises in the manufacturing of customised motor vehicles. The Audit Engagement Partner recently met with Kalulu's Finance Director and has provided you with the following notes:

Planning meeting notes

Kalulu has a forecast profit before tax of K122 million (2023: K98 million) and total assets of K285 million (2023: K243 million). The Finance Director has indicated that the directors are very excited with the forecast performance for the year as the directors are paid a performance-based bonus of 5% of profit before tax.

Customers pay a 35% deposit on signing the sales contract, with the balance payable when the vehicle is collected by the customer from the showroom. Kalulu extends credit to selected corporate customers. There is a significant receivables balance at the year end.

Kalulu offers its customers a warranty at no extra cost, which guarantees that the vehicle will function as expected for a period of two (2) years. The allowance for receivables for the current year has been calculated as 3% of trade receivables. In the previous year the allowance was based on 6% of trade receivables. The Finance Director has made this change despite no significant difference in the level of debt collection in the year.

Kalulu incurred expenditure of K18 million relating to the research and development of a new type of environmentally friendly factory. K6 million of the expenditure to date has been expensed in the statement of profit or loss. The remaining K12 Million has been capitalised as an intangible asset. No amortisation has been recognised to date as the factory has not yet been brought into use. In order to finance the research and development costs, Kalulu made a rights issue to existing shareholders at a price of K75 for each K50 share.

Ten (10) customers have sued Kalulu claiming K6 million as compensation on allegations that the motor vehicles manufactured by Kalulu are unstable on the road and this caused the accidents they were involved in and suffered severe injuries. No provision has been made as the court ruling will take place after the year end.

You are planning the audit of the financial statements of Kalulu Co. for the year ended 30 November 2024 and the Audit Engagement Partner has informed you that you should use appropriate sampling methods to extract items for testing in order to reduce sampling risk.

Required:

(a) (i) Explain the difference between sampling risk and non-sampling risk. (2 marks)

(ii) Explain three (3) benefits of audit planning. (3 marks)

(b) Identify and explain five (5) audit risks; and explain the auditor's response to each risk in planning the audit of Kalulu Co. (10 marks)

(c) Describe five (5) substantive procedures the auditor should perform in relation to Directors' bonuses. (5 marks)

[Total: 20 Marks]

QUESTION THREE

Kaleya Ltd. is a medium size company involved in the importation of groceries and hardware from China for resale to retail shops across the country. Kaleya Ltd. wishes to grow its business and to achieve this growth it requires recapitalization. It intends to raise capital through obtaining a bank loan, as a short term source of capital, and listing on the Securities Exchange.

In the current year, Kaleya Ltd. obtained a listing on the Lusaka Securities Exchange to enable the company raise more capital. The name of the company was changed to Kaleya Plc. in line with listing requirements. The original shareholders retained a 20% shareholding in the company, while the remaining shares were bought by an institutional investor and individual shareholders.

The composition of the Board of Directors of Kaleya Ltd. has not changed after obtaining the stock exchange listing. It comprises of seven (7) board members who are the founders of the company and some of their family members. The day to day activities of the company are managed by management that is headed by Chanda who is also the Chairman of the Board of Directors. There is an Audit Committee comprising three (3) executive board members. None of these executive board members has any knowledge of financial reporting.

The Securities Exchange wrote to the company that it should comply with the listing rules such as putting in place an effective board and appoint auditors to audit the annual financial statements. The existing board members do not appreciate the benefits of the financial statements being audited by external auditors at great cost when some of the shareholders are involved in the day to day running of the company. Further, they wish to know the level of assurance that will be given by the audit because they have heard that the auditors do not give an absolute assurance but consider whether or not the financial statement show a '*true* and *fair* view'.

The first financial statements to be subject to an external audit are for the year ended 31 March 2025. Your firm has been appointed by the Board of Directors of Kaleya Ltd. as its first external auditors. You are leading the audit of the financial statements of Kaleya Ltd. and the audit is in its final stage.
As part of the finalization of the audit, you requested management to assess the going concern ability of the company.

Management of Kaleya Ltd. carried out an assessment of the going concern ability of the company and concluded that it is a going concern. The audit has revealed uncorrected misstatements of

K670, 000 and management has declined to make corrections in the financial statements arguing that the amount is not material at 3% of the profit after tax. During the audit, the audit team obtained evidence through inquiries of management and management responded orally to queries raised by the audit team.

Required:

(a) (i) Explain four (4) benefits of the external audit of the financial statements of Kaleya Plc. (4 marks)

(ii) Explain the meaning of the terms '*true* and *fair'* that the auditors use in the opinion paragraph of the audit report. (4 marks)

(b) Explain three (3) weaknesses in the corporate governance structures of Kaleya Plc. (6 marks)

(c) Describe three (3) areas where written representations will be required in the finalization stage of the audit of the financial statements of Kaleya Plc. (6 marks)

[Total: 20 Marks]

QUESTION FOUR

You are an Audit Manager of Funga & Associates (Funga), and audit matters below have been brought to your attention.

Mando Co. (Mando):
During the year, 50% of the company's significant customers have experienced a fall in sales, and consequently they have ceased purchasing items from Mando Co. One (1) of Mando's main suppliers is threatening taking legal action to recover the amount owing. Mando has produced a cash flow forecast for the next one (1) year and this shows net cash outflows. Further, Mando has a loan of K230 million which is due for repayment in full by the end of the financial year.

The Finance Director informed you that there is a possible change in legislation which will result in one (1) of Mando's major products becoming obsolete as it will not comply with the proposed law. Mando has prepared its financial statements on the going concern basis.

Kombwe Co. (Kombwe):
You are aware that Key Audit Matters (KAM) are selected from matters communicated to those charged with governance. However, those charged with governance of Kombwe do not understand the meaning of Key Audit Matters and the matters which should be considered when determining Key Audit Matters according to ISA 701 *Communicating key audit matters in the independent auditor's report.*

Chimba Co. (Chimba):
Chimba incurred research expenditure of K21 million and development expenditure of K32 million during the year, these have all been capitalised as intangible assets.

Chimba's computerized inventory management software is backed up daily, however for a period of two (2) months the inventory records and the back-ups have been corrupted, and therefore cannot be accessed. Inventory for these two (2) months is K28 million. Chimba profit before tax for the year is K263 million.

Audit Junior's comment:

'Sir, I do not understand why the independent auditor's report may include the Emphasis of Matter (EOM) paragraph and the Other Matter (OM) paragraph, because both are used in the independent auditor's report to refer to the same matter'.

Required:

(a) Describe the audit procedures which the auditor should perform in assessing whether or not Mando Co. is a going concern. (5 marks)

(b) (i) Explain the meaning of Key Audit Matters (KAM). (1 mark)

(ii) Explain three (3) types of matters which should be considered when determining Key Audit Matters. (3 marks)

(c) With reference to Chimba, discuss each issue, including materiality assessment; and describe the impact on the audit report if the issue remains unresolved. (8 marks)

(d) Explain the difference between the use of the Emphasis of Matter (EOM) paragraph and the Other Matter (OM) paragraph in the auditor's report. (3 marks)

[Total: 20 Marks]

QUESTION FIVE

Kafue Ltd. is a company that is in the mining industry and is involved in quarrying and supply various types of construction materials. The company runs five (5) quarries in the country and its Head Office is in Lusaka. The company has a Board of Directors comprising seven (7) Board members, a majority of whom are executive board members. There is an Audit Committee comprising the Non-Executive Board members and an Internal Audit department which reports to the Audit Committee. The Board of Directors has a Risk Committee which is responsible for the risk assessment systems of the company. At the management level, there is a Risk Manager who coordinates all risk activities of the company.

Kafue Ltd. has internal control systems in place and these are contained in the Standards Operating Procedures (SOPs) manuals maintained for the major business cycles. The sales are cash and credit sales. Thirty (30) days credit is extended to customers that meet the credit worthiness determined by the company. Cash customers are required to place their orders with the Sales Assistant who raises cash sale invoices which are the basis for the payment to the cashier. The company sets credit limits beyond which supplies cannot be made. The company has a system in use to ensure that no supplies are made to customers beyond their credit limits. There is a security barrier at the exit gate of Kafue Ltd. where all goods leaving the premises are checked before being dispatched.

Kafue Ltd. advertised for the offer of external audit services for the first time. The company made available basic information that is required by prospective auditors in deciding whether or not to bid. After evaluating the bids, the company agreed to provide additional information required by your firm (Soft & Associates) to enable it make an informed decision before accepting appointment.

You are responsible for client acceptance screening at Soft & Associates. This will be the first time that your firm will be auditing a company in the mining industry.

You asked an Audit Senior to gather more information about Kafue Ltd. to help you make an informed decision before accepting appointment. The information gathered by the Audit Senior

indicate that the audit risk is high. You are very keen to ensure that your firm's appointment as auditors is legally and ethically right.

In the event that your firm accepts appointment as auditors of Kafue Ltd., you intend to follow a combined audit approach and place reliance on the internal controls. In order to do this the audit team will require gaining an understanding of the components of internal control of Kafue Ltd.

Required:

(a) (i) Explain four (4) factors that should be considered before accepting appointment as auditors of Kafue Ltd. (4 marks)

(ii) Explain how the outcome of the assessment of audit risk by the Audit Senior will impact your decision whether or not to accept appointment as auditors of Kafue Ltd. (4 marks)

(b) (i) Explain the role of the Audit Committee of Kafue Ltd. (2 marks)

(ii) Explain the meaning and importance of probity for the members of the Board of Directors of Kafue Ltd. (2 marks)

(c) (i) Suggest four (4) control activities for the sales system of Kafue Ltd. (4 marks)

(ii) Explain four (4) components of internal control that the audit team should gain an understanding of. (4 marks)

[Total: 20 Marks]

END OF PAPER

CA 2.3: AUDITING PRINCIPLES AND PRACTICE

SUGGESTED SOLUTIONS

SOLUTION ONE

(a)

(i) Meaning of reasonable assurance:

Reasonable assurances are given by the auditors after conducting an audit in an assurance engagement with a client. It is a high but not absolute level of assurance. The auditors can never give an absolute assurance because of limitations of audits and financial reporting.

(ii) Role of the Board of Directors of Livingstone Plc.:

The role of the board of directors of Livingstone is to provide oversight on management. The management of Livingstone Plc. is answerable to the board of directors.

(b) Ethical issues in the audit of the financial statements of Livingstone Plc.:

	Ethical matter	Explanation
1	Partner on client board	The fact that the Partner is a member of the board of directors of Livingstone Plc. is an ethical issue giving rise to a self-interest threat impacting the objectivity of the Partner.
2	Inherited shares of Partner in Livingstone Plc.	The holding of shares in Livingstone Plc. is a self-interest threat on the part of the Partner. The company is partly owned by the Partner through the shareholding. This will impact the objectivity of the Partner.
3	Provision of tax services	The provision of certain tax services to an assurance client gives rise to a threat to the objectivity of the auditor. The determination of the tax liability and the deferred tax amount will result in a self-review threat.
4	Overreliance on client	Overreliance on one client gives rise to a self-interest threat. In this case the total fees that will be got from services to Livingstone Plc. will be 35%. The firm will require to apply suitable safeguards to remove the reliance on Livingstone Plc.
5	False dates of manufacture & expiry	This is criminal offence committed by Livingstone Plc. The firm is considering reporting this to the regulators in which the ethical principle of confidentiality should be considered. In this case since this is a criminal case involving the client the

		auditors may report to the regulatory authorities without breaching the ethical principle of confidentiality.
6	Goods given to audit team members	The offer of goods worth K25 000 to each of the audit team members is unethical and gives rise to a self interest on the part of the audit team members. Their objectivity will be impacted and appropriate safeguards should be applied.
7	The fact that the firm did not seek professional clearance is a professional issue. The firm is required to communicate with the outgoing auditors and in this case permission was granted by management.	The firm should put in place policies that it communicates with previous auditors before considering to accept nomination.

(c) Audit risks in the audit of the financial statements of Livingstone Plc.:

	Audit risk	Explanation
1	Obsolete food	The nature of the food industry is that preserved food expires and may not be sold at above cost and may require to be written off. There is an audit risk in the audit of the financial statements of Livingstone Plc. that inventory of expired food will be overstated resulting in an understatement of cost of sales and overstatement of profit.
2	Non-compliance with laws & regulations	The food industry is highly regulated. There is a risk that Livingstone Plc. may not comply with some of the relevant laws and regulations. There is a risk that provisions may be misstated and also noncompliance with laws and regulations could have a bearing on the ability of the company as a going concern.
3	Recognition of sales on consignment	Goods sent to the chain stores on consignment is part of the inventory of Livingstone Plc. There is a risk that this inventory may be accounted as sales instead of inventory resulting in the misstatement of revenue and inventory values.
5	Inventory valuation & discrepancies	Inventory is required to be valued at the lower of cost and net realizable value. There is a risk that the net realizable value

		for lines of products may be lower than cost and yet inventory ay inappropriately be valued at cost.
6	Overstatement of receivables	There is a risk that receivables may be overstated on account of the increasing overdue amount and where later receivables balances are paid before earlier ones. There are likely to be disputes on some amounts which may not be collectable.
7	Opening balances	There is a risk that opening balances may be misstated on account of the fact that the previous year financial statements were audited by different auditors. Any misstatement may impact the current year financial statements.
8	Un authorized amendment to inventory records.	The amending of inventory records by stores staff could lead to fraud and fraudulent financial reporting in an effort to conceal the fraud. This could result in the misstatement of the financial statements.

(d) Internal control activities in the purchases and inventory systems of Livingstone Plc.:

	Internal control activity	Control objective
1	The purchase orders should be accountable documents.	To ensure that all purchases paid for are for the company and not for the benefit of other people.
2	Authorization of purchase orders by the Purchasing manager.	To ensure that all purchases are duly authorized.
3	There should be quality control checks on receipt of goods evidenced in writing.	To avoid disputes and returns of defective goods.
4	There should be regular monthly reconciliation of supplier balances per supplier statements with balances according to the records of Livingstone Plc.	To ensure that any errors are identified and corrected promptly to avoid differences in balances.
5	Stock cards should be accountable documents. Cancelled cards should not be destroyed and must be accounted for.	To avoid the destruction of stock cards for fraudulent purposes and replacing them with amended details on a fresh card.
6	Amendments of stock discrepancies should be authorized by a responsible official. Authorization of an official outside the stores department will be preferred.	To avoid staff from amending stock details for fraudulent purposes.

(e)(i) Suitable confirmation method for receivables:

The appropriate method of receivables confirmation is the positive form of confirmation. This is on account of the fact that there Livingstone Plc. does not reconcile the receivables balances with the customer balances. There a high incidence of overdue balances and in some cases recent debts are paid before older debts. This could arise because of dispute on some amounts.

(ii) Procedure for third party confirmation of receivables:

1. Cast the receivables age analysis to ensure that it is arithmetically correct.
2. Confirm that the total of the receivables age analysis is the same as the balance in the receivables control account in the ledger.
3. Extract a sample of receivables to be confirmed.
4. Give the schedule of receivables to be confirmed to management of Livingstone Plc. and requires the company to write to the receivables in the sample on the letter head of Livingstone Plc.
5. Obtained the signed letters to the receivables from the company and post the letters.
6. Make follow up as necessary with the help of management of the non-responses.
7. For the responses received reconcile the confirmed balance with the balance per age analysis and obtain explanations for any differences.

SOLUTION TWO

(a) (i) Sampling risk and non-sampling risk

Sampling risk
The risk that the auditor's conclusion based on a sample may be different from the conclusion, if the entire population were subjected to the same audit procedure.

Non-sampling risk
The risk that the auditor may form a wrong conclusion or opinion, which is not related to sampling.

(ii) Benefits of audit planning

1. Helps the auditors to perform an audit in an effective and efficient manner.
2. Helps the auditors to identify and resolve potential problems on a timely basis.
3. Helps the auditor to devote appropriate attention/time to important areas of the audit.
4. Helps in selecting/allocating team members with appropriate capabilities and competence.
5. Helps in facilitating the direction and supervision of audit team members and reviewing their work.
6. Helps in performing the audit according to ISAs requirements.
7. Helps, where applicable, in coordination of work done by experts.

(b) Audit risks and auditors' responses

#	Risk	Response
1	New audit client. There is a risk that the auditors may lack an understanding of the entity. E.g. its accounting policies, transactions and balances, so this will increase detection risk. The opening balances may also be materially misstated.	More experienced and skilled/competent auditors should be assigned to the audit and adequate time should be taken to allow the auditors to obtain an understanding of the entity and the audit risks. Increased audit procedures should be performed over opening balances.
2	5% bonus based on profit before tax. There is a risk that the directors will try to overstate the profit to increase their bonuses, by overstating the revenue and understating expenses. E.g. by using accounting estimates or provisions.	Use more experienced auditors to audit directors' bonuses/remunerations. The auditors should exercise professional skepticism when auditing risk areas (estimates/provisions). Detailed tests should be performed on adjusting journal entries.
3	35% deposit on signing the contract. There is a risk that revenue is overstated, and current liabilities understated if the deposits have been recorded within revenue. Revenue should be recognized when the vehicle is passed to the customer - IFRS 15.	Discuss with management the criteria for the treatment of deposits received to ensure it is appropriate and consistent with relevant standards – IFRS 15. The auditors should perform detailed tests over the cut-off of revenue and the

		completeness of deferred income (contract liabilities).
4	Customers warranty at no extra cost. There is a risk that the warranty provision could be understated, leading to understated expenses and liabilities. Calculating warranty provisions requires judgement as it is an uncertain amount. – IAS 37.	Discuss with management the basis of the provision calculation and compare this to industry averages and the level of post year-end claims. Compare the prior year provision with the actual level of claims in the year, to assess the reasonableness of the judgements made by management.
5	3% allowance for receivables. In the previous year, this was 6%. There is a risk that receivables are overstated and allowance for receivables understated, since there is no significant difference in the debt collection levels in the year to justify the reduction from 6% to 3%.	Discuss with management the basis (assumptions) of reducing the allowance of receivables from 6% to 3%, to assess their reasonableness, since there is no significant difference in the debt collection levels in the year to justify the reduction from 6% to 3%.
6	K12 million has been capitalized. If research costs have been incorrectly classified as development expenditure, there is a risk that intangible assets could be overstated, and research expenses understated. Research costs should be expensed – IAS 38. The amount is material as it is 4.2% of total assets.	Discuss the accounting treatment with the finance director and ensure it is in accordance with IAS 38. Review the breakdown of the research expenditure recognized in profit or loss and of the development costs capitalized to ensure that they meet the criteria set out in IAS 38.
7	Rights issue calculation. There is a risk that the balances are misstated, and the issue has been made at a premium and therefore requires to be split into its share capital and share premium elements. There is a risk that the split between share capital and share premium has not been accounted for correctly.	Recalculate the split of share capital and share premium to confirm accuracy and agree this to the journal entries recorded for the rights issue. Inspect the legal documentation in support of the rights issue to agree the number of shares issued and the rights price.
8	Rights issue disclosure. There is also a risk that the rights issue has not been disclosed in accordance with accounting standards and local company legislation.	The auditors should verify or confirm that disclosures are adequate or appropriate and consistent with standards and legislation.
9	K6 million as compensation. There is a risk that liabilities are understated, and expenses understated, leading to overstatement of profit, since the provision has not been provided for in the financial statements.	Enquire from lawyers or legal counsel the probability of the customers wining the case and the probable amount of compensation. Review also the court correspondence available to have an understanding of the court case.

(c) Substantive procedures for directors' bonuses

1. Recalculate the bonus payments and agree the amounts to supporting documentation to verify accuracy.
2. Agree the bonus percentage rate of 5% to the directors' employment contracts or human resource records to verify accuracy.
3. Inspect the cash books and bank statements to confirm the amount of each bonus paid to each director.
4. Review the board minutes to verify approval of directors' bonus entitlement of 5% of profit before tax.
5. Inspect the board minutes to verify approval of the amounts paid to each director.
6. Review the disclosures made regarding the bonus paid to directors and assess whether these comply with IFRSs and laws and regulations.
7. Obtain a written representation from management confirming that the directors' remunerations including the bonus are complete and accurate.
8. Review the schedule of current liabilities to confirm that the bonus approved but not paid has been accrued for as a liability at the year end.
9. Compare the bonus amount paid or payable to the amount in the financial statements to verify accuracy and discuss any differences with management.

SOLUTION THREE

(a)(i) Benefits of an external audit of financial statements to Kaleya Plc.:

1. Now that Kaleya Plc. will be required to submit annual tax returns, it will benefit from an external audit in that the tax authorities will rely more on audited financial statements than financial statements that are not audited by external auditors.
2. The company intends to obtain a bank loan as a short term measure to raise the much needed capital. The bank is more likely to give the loan in view of the fact that the financial statements will have been audited by independent auditors. Further, as one of the conditions of the loan bank may require that Kaleya submits annual audited financial statements as one of the loan conditions.
3. Audited financial statements will enhance the credibility of the financial statements of Kaleya Plc.
4. Audited financial statements will give assurance on the performance of Kaleya Plc. to the shareholders a majority of whom do not take part in the day to day running of the company.

(ii) Meaning of true and fair:

The term **'true'** that is used in terminology in the opinion of the audit report means that the information contained in the audited financial statements is factual and conforms to reality. That the financial statements have been prepared in accordance with relevant standards and the law.

The term **'fair'** in in the opinion means that the information contained in the financial statements is free from discrimination and bias and that the financial statements present the substance of the underlying transactions.

(b) Weaknesses in the corporate governance of Kaleya Plc.:

1. The Board of Directors of Kaleya Plc. comprises founders of the company with their family members. They are not independent of the company and are not likely to positively contribute to the successful running of the company and this is contrary to best practice requiring that the board should comprise a mixture of executive and non-executive members.
2. Chanda who currently is the Chief Executive Officer of Kaleya Plc. is also chairman of the Board of Directors. This is not in line with corporate governance guidelines and best practice which require that the positions of the CEO and board chair should be held by two people.
3. The composition of the audit committee by executive board members in not in line with corporate governance guidelines which require that the committee should comprise non-executive board members.
4. The Audit Committee of Kaleya Plc. comprises members who have no knowledge of financial reporting. Guidance requires that one (1) member of the Audit Committee should have knowledge of financial reporting.

(c) Areas where written representations will be required:

1. The auditors should obtain written representations from management of Kaleya Plc. on the conclusion that the company is a going concern. This is a requirement of ISA 570 *Going concern*.
2. Written representations should be obtained from management that it believes that the uncorrected misstatements are not material. This is a requirement of ISA 450 *Evaluation of misstatements identified during the audit.*
3. The auditors require to obtain written representations to support oral and other evidence that the auditors would have obtained.

SOLUTION FOUR

(a) Going concern audit procedures – Mando Co

1. Discuss with the finance director/management any plans in place to replace the customers that have stopped buying items from Mando.
2. Enquire from the lawyers of Mando the probability of the supplier wining the case and the likely amounts payable to the supplier.
3. Review the assumptions used to prepare the cash flow forecast to assess their reasonableness.
4. Review and cast the cash flow forecast to verify completeness and accuracy.
5. Discuss with the finance director/management any other means or sources of funds to repay the loan of K230 Million in full.
6. Enquire from the lawyers of Mando the probability of the proposed change in legislation becoming law, which may render a key major product obsolete.
7. Discuss with management the basis of preparing the financial statements on a going concern basis, with all these indicators of going concern problems.
8. Obtain a written representation confirming that directors' believe Mando is a going concern.
9. Inspect or review the post year-end board minutes to identify any other issues which might indicate further going concern problems.
10. Inspect or review post year-end management accounts to assess if they are in line with cash flow forecast.

(b) Key audit matters and how they are determined – Kombwe

(i) Key audit matters

Matters that, in the auditor's professional judgment, were of most significance in the audit of the financial statements of the current period.

(ii) Matters to consider when determining KAMs

1. Areas of higher assessed risk of material misstatement, or significant risks identified. e.g. revenue recognition from contracts with customers.
2. Areas in the financial statements that involved significant management judgment. e.g. accounting estimates or areas involving high estimation uncertainty.
3. The effect on the audit of significant events or transactions that occurred during the period. e.g. acquisition of a significant subsidiary within a group.

(c) Research and development expenditure; and inventory - Chimba

Research and development expenditure

1. Research expenditure of K21m has been capitalised within intangible assets. This is contrary to IAS 38.
2. The error is material as it represents 8% of profit before tax (21/263).
3. Management should adjust the financial statements by expensing the research costs.

   Impact on audit report if matter remains unresolved:
   - If management refuse to amend this error, then the audit report will need to be modified.

- The matter is material but not pervasive, so a qualified/modified opinion would be necessary.
- The basis of opinion paragraph should include a paragraph explaining the material misstatement.
- The opinion paragraph would be qualified 'except for'.

Inventory

1. The auditors should attempt to verify inventory value in an alternative manner.
2. If they are unable to do this then inventory for the whole year would not have been verified.
3. Inventory for the 2-month period represents 11% of profit before tax (28/263) and therefore is a material balance for which audit evidence has not been available.
4. Impact on audit report if matter remains unresolved:
   - If auditors are unable to obtain sufficient appropriate evidence in relation to this matter, they need to consider whether the matter is material or pervasive.
   - This matter is material but not pervasive, so the opinion will be modified/qualified.
   - The basis of opinion section will be amended to explain the limitation in relation to the lack of evidence over 2 months of inventory records.
   - The opinion paragraph will be qualified 'except for'.

(d) Difference between Emphasis of Matter (EOM) paragraph and Other Matter (OM) paragraph

Emphasis of matter (EOM) paragraph
This is used to refer to a matter already disclosed in the financial statements, but the auditor believes it is fundamental to the users understanding.

Other matter paragraph
This is used to refer to a matter that has not been disclosed in the financial statements, but the auditor believes it is relevant to users understanding.

SOLUTION FIVE

(a)(i) Factors that should be considered before accepting appointment:

1. There will be need to get references on the directors of Kafue Ltd in view of the fact that the firm does not know them.
2. The firm should ensure that it is professionally qualified to act as auditors and has the necessary licenses to operate as auditors.
3. The firm should consider whether it has the necessary financial and human resources to be able to carry out the audit in view of the fact that the year-end of most of its clients is the same as the year end of Kafue Ltd.
4. Finally, the firm should communicate with the previous auditors of Kafue Ltd.

(ii) Impact of audit risk in deciding whether or not to accept appointment:

The Audit Senior has concluded that the audit risk of Kafue Ltd is high. This will impact the decision whether or not to accept nomination in one of two ways as follows:

1. If in the view of the firm audit risk cannot be reduced to acceptable levels, then the firm should not accept appointment as auditors.
2. If on the other hand the audit risk can be reduced the firm can go ahead and accept appointment and responds appropriated to the matters that caused audit risk to be high.

(b)(i) The role of audit Committees

Audit Committees oversee the integrity of financial reporting, appointment of external auditors, reviewing the effectiveness of internal control system, and risk management, and promotion of the culture of good corporate governance.

(ii) Meaning of probity for member of the board of directors:

Probity is a high standard of behavior that is expected in the behavior and moral principles of the members of the Board of Directors of Kafue Ltd. they should act honestly and decently in performing their duties as board members.

Importance of probity to the board:

Probity is important to the members of the Board of Directors in that they will put the interest of the company ahead of their personal interests. The members will provide the necessary oversight on management to ensure that it fulfills its stewardship responsibilities in the interest of the shareholders.

(c)(i) Control activities for the sales systems of Kafue Ltd:

1. Sales invoices should be made accountable documents that should be accounted for to ensure that all sales made are for the benefit of the company.
2. There should be vetting of customers before authorization for credit is made by a responsible official. The authorization should be evidenced in writing.
3. All orders by credit customers should be verified by an independent official to ensure they do not exceed the credit limit set.
4. Goods supplied for cash sales should only be allowed to leave the premises on presentation of a cash sale invoice, receipt for the money paid and a delivery note.

5. There should be registers for recording all goods leaving the premises by the security personnel at the exit gate. This will facilitate reconciling the daily sakes to the goods that have left the premises.

(ii) Components of internal control that the audit team will be expected to gain an understanding.

1. **Control environment in Kafue Ltd:**
   The audit team will require to understand the attitude of management and the board of Kafue Ltd regarding internal controls. Controls in a company are more likely to operate efficiently in an environment where they are considered important.

2. **Information system used by Kafue Ltd:**
   The audit team will need to understand the newly introduced information system which will be the source of the information in the financial statements. The team will require to understand the information system controls that exist to satisfy it that the system can be relied upon in the preparation of the financial statements.

3. **The control activities of Kafue Ltd:**
   The audit team will require to understand the internal control activities put in place to help prevent and detect fraud and error. The audit team will particularly be expected to consider control relevant to the financial statements and the audit and establish the extent to which the controls respond to risks on Kafue Ltd.

4. **Monitoring of controls:**
   The audit team will require to know the system in place to monitor the controls to ensure that they remain relevant including the role of internal audit in Kafue Ltd if any.

5. **The risk assessment systems of Kafue Ltd:**
   The team will require to understand how robust the system of risk assessment used by Kafue Ltd is. The internal controls put in place are in response to the risks that exist.

END OF SUGGESTED SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ZAMBIA APPLICATION ADVANCED DIPLOMA IN ACCOUNTANCY

CA 2.4: TAXATION

THURSDAY 11 SEPTEMBER 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 6 of the question paper.

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

Taxation Table

Income Tax

Standard personal income tax rates

Income band	Taxable amount	Rate
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
GVW up to 2 tonnes	15,715	12,048	7,246	5,556

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 – (COMPULSORY)

Citex Manufacturing plc is a Zambian resident company engaged in manufacturing. The statement of profit or loss for the company for the year ended 31 December 2025, shows a profit for the year of K100,405,000. The profit for the year was arrived at after taking into account the following items:

(1) Employee and director's emoluments which included employee's salaries of K137,500,000, director's emoluments of K75,500,000, staff gratuities paid of K76,500,000, retirement pensions of K96,700,000, skills development levy of K817,936, employer's NHIMA contributions of K2,130,000 and NAPSA penalties of K879,000. Director's emoluments include the annual salary of K5,400,000 for the company's Chief Executive Officer who is accommodated in a company owned house for which he does not pay any rent.

(2) Entertainment expenditure, which included, gifts of the company's branded Golf T shirts to customers valued at K350 per customer totaling K70,000, staff refreshments of K154,000, hospitality expenses for customers of K68,000, end of year party for employees of K115,200, and donation of food and clothing to approved public benefit organisations valued at K400 per recipient totaling K400,000.

(3) Legal and professional fees which included fees for legal services of K855,000, audit fees of K555,000, professional fees for land surveying of K165,000, legal fees in connection with recovery of loans from former employees of K65,000, legal fees of K263,500 for trade debt collection and a premium paid for the grant of the right to use industrial designs for a period of fifteen (15) years amounting to K1,500,000.

(4) Irrecoverable debt expenses comprising trade debts written off amounting to K415,300, loans to employees written off amounting to K265,000 and increase in general provision of K386,000.

(5) General operating expenses which included marketing expenses of K1,134,000, fees for renewal of the business operating license of K35,500, provisional income tax paid during the year of K6,175,000, ground rates of K425,000, depreciation charges of K15,400,000, loss on disposal of Mitsubishi delivery van of K76,000 and miscellaneous allowable operating expenses of K186,444,100.

(6) Income credited to the accounts which included Treasury Bill discount of K3,060,000 (net), consultancy fees of K3,655,000 (net) and dividends of K2,720,000 (net). Withholding tax where applicable was deducted at source and paid on the appropriate due dates.

Additional information

(i) **Implements, plant and machinery**

On 1 January 2025, the company held the following implements, plant and machinery which were acquired at the following costs and brought into use on the following dates:

Date	Asset	Original cost (VAT Inclusive) K
20 June 2023	Mitsubishi delivery van	649,600
16 September 2024	General plant and equipment	3,770,000

During the year ended 31 December 2025, the following purchases and disposals of assets took place:

Date	Details	Cost/(Proceeds) K
	Purchases	
1 March 2025	Manufacturing equipment (VAT Inclusive)	17,400,000
5 April 2025	Toyota Fortuner car (VAT Exclusive)	2,200,000
20 May 2025	Pool motor car (2,200cc) (VAT Exclusive)	1,400,000
	Disposals	
1 June 2025	Mitsubishi delivery van (VAT Exclusive)	(595,000)

The Toyota Fortuner Car is used by the Chief Executive Officer on a personal-to-holder basis and has cylinder capacity of 2,800cc. Private use has been agreed with the Commissioner General to be 25%.

(ii) **Buildings**

On 15 January 2025, the company completed the construction of a building which was brought into use immediately. The building comprised the following items:

	K
Factory	124,500,000
Ventilation and heating systems	13,000,000
Fire extinguishers	8,500,000
Storeroom for raw materials	28,000,000
Administration offices	56,000,000
Warehouse for finished goods	45,000,000
Cost of land	25,000,000
Total Cost	300,000,000

All of the above figures relating to the building are VAT exclusive

Required:

(a) Calculate the maximum capital allowances claimable by Citex Plc for the tax year 2025 on the following:

(i) Buildings. (7 marks)

(ii) Implements, plant and machinery. (12 marks)

(b) Compute the final taxable business profit, after capital allowances, for Citex Plc for the tax year 2025. (12 marks)

(c) Compute the income tax payable by the company for the tax year 2025. (6 marks)

(d) Assuming that the company pays the income tax payable you have computed above, on 31 October 2026, compute the amount of interest and penalties chargeable on the company for late payment of the tax. **You should assume that the Bank of Zambia discount rate is 14.50% per annum.** (3 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt any THREE (3) questions.

QUESTION TWO

Boas Kalulu had been employed as a Marketing Manager at Kariba Limited, a Zambian resident company which is specialized in selling motor vehicle spares. He was declared redundant, as a result of a restructuring undertaken by the company, on 1 August 2025. He is fifty-six (56) years old and is married with four (4) children, all of whom are school going children.

In the tax year 2025, Boas Kalulu was entitled to an annual salary of K672,000, which was paid monthly on the last day of the month. He was also entitled to the following allowances:

- Housing allowance of 30% of his annual salary paid on a monthly basis.
- Transport allowance of 25% of his annual salary paid on a monthly basis.
- School children allowance of K3,500 per child per term, paid at the beginning of each term.

During the year, the company reimbursed him the following expenses incurred on 31 July 2025, after producing relevant supporting documentation:

	K
Electricity bills	18,500
Water bills	15,400
Life insurance premiums	30,600

Throughout his employment in the tax year 2025, he was provided with free meals in the company's staff canteen. The total cost of these meals to the company was K23,000. The canteen provides meals to all company employees. In addition, he received a performance related bonus of K45,000 in June 2025. This was in recognition of his dedication to duty.

During the tax year 2025, he used his personal Toyota Land Cruiser motor car with a cylinder capacity of 3,200 cc for the purpose of his duties. He acquired the car on 1 March 2025 at a cost of K220,000. In the tax year 2025, he drove a total of 25,000 kilometres out of which 15,000 Kilometres were in the performance of his duties of employment. He incurred motor car running expenses of K2,800 per month in the tax year 2025.

The company had always deducted employee's NAPSA contributions of 5% of his gross earnings and the company also contributed 5% of his basic salary as employer's NAPSA contributions on his behalf. Employer's and employee's NHIMA contributions have been at the rate of 1% of his basic salary in each case.

On being declared redundant on 1 August 2025, Boas Kalulu received the following benefits:

	K
Salary in lieu of notice	154,000
Repatriation pay	45,000
Severance pay	35,000
Accrued leave pay	27,500

The following payments and deductions were made from Kalulu's gross earnings in the tax year 2025:

	K
Professional subscription related to his employment	9,400
School fees for children	16,000
Golf club subscriptions	5,200
PAYE	208,194

Required:

(a) Explain the basis of assessment for emoluments from employment to income tax.

(3 marks)

(b) Explain the tax consequences of late payment of income tax deducted from emoluments under Pay As You Earn system. (2 marks)

(c) Calculate the total income tax payable by Boas Kalulu for the tax year 2025. **You should indicate zero (0) for all employment benefits that are exempt from tax.**

(15 marks)

[Total: 20 Marks]

QUESTION THREE

You are employed in a firm of Chartered Accountants. You are dealing with the tax affairs of CDP Trading Limited, a company which is registered for VAT.

In May 2025, CDP trading Limited imported a brand new eight (8) tonne Fuso truck from a motor vehicle dealer in Japan to be used in the transportation of materials for business purposes. The truck was manufactured in 2024. The list price of the truck was $20,000 free on board. The company paid insurance of $3,200 and freight of $4,100 in transit to the port of Dar es Salaam. Other incidental costs incurred by the company up to Nakonde Boarder were $500. The average exchange rate at Nakonde boarder at the time of importation of the truck was K24.20. However, the exchange rate provided by the Commissioner General was K24.50 at the time of importation.

The Tax Manager has further asked you to prepare the VAT return for CDP trading Ltd for the month of July 2025. You have been provided with the following information relating to the transactions entered into by CDP trading Limited in the month of July 2025:

(1) On 1 July the company made sales amounting to K2,060,000 out of which K660,000 were zero rated, K310,000 were exempt supplies and the balance were standard rated supplies.

(2) On 6 July 2025 the company bought goods from NHL Limited, a VAT registered supplier amounting to K1,230,000. K801,560 (VAT inclusive) of these purchases were standard rated, K62,000 were zero rated and the balance were exempt.

(3) Standard rated overheads incurred during the month of July 2025 totaled K815,000 and comprised the following items:

	K
Motor car expenses	141,000
Utility Bills	121,200
Expenditure incurred on customer entertainment	242,200
Telephone bills	210,600
Expenditure incurred on entertaining employees	100,000

Utility bills include K2,500 which was incurred in respect of a company owned house in which the Human Resources Manager is accommodated.

(4) The company wrote off two (2) invoices issued to customers as irrecoverable on 31 July 2025. The first invoice amounting to K230,000 was due for payment on 1 August 2024 while the other invoice amounting to K168,000 was due for payment on 1 April 2024.

(5) The company purchased a Toyota Hilux Van at a cost of K206 240 (VAT Inclusive) and a Nissan Murano car at a cost of K280,800. All the vehicles are used to make taxable and exempt supplies in proportion to sales.

(6) On 10 July 2025 the company sold standard rated machinery which was excess to its requirements for K928,000 (VAT inclusive)

(7) Unless otherwise stated all of the above figures are exclusive of VAT.

Required:

(a) Calculate the value for duty purposes of the Fuso Truck and the total import taxes paid by the company on the importation of the truck in May 2025. (6 marks)

(b) Calculate the amount of VAT payable or refundable for the month of July 2025. **You should indicate by using a zero (0) all items on which VAT is not chargeable or claimable.** (14 marks)

[Total: 20 Marks]

QUESTION FOUR

You are employed in the tax department of a firm of Chartered Accountants and your supervisor has provided you with the following information relating to three (3) clients of your firm:

(1) **NGN Real Estates Ltd.**

NGN Real Estates Ltd, is a Zambian resident company that lets out property for commercial purposes. In the tax year 2025, the company let out a shopping mall consisting of twenty (20) units of retail shops.

Gross monthly rentals for each shop is K15,500. Property maintenance costs amounts to K1,500 per shop per month. Annual security fees for the shopping mall are K120,000.

The company also let out ten (10) units of self-contained, two (2)-bedroomed residential flats. Each of the ten (10) flats generates gross monthly rentals of K10,000. Expenses incurred wholly and exclusively for letting purposes for the flats were K5,500 per month.

(2) **Mutale**

Mutale is self-employed and owns a grocery shop that produced a final taxable business profit of K1,956,000 form a turnover of K8,950,000 for the tax year 2025.

He also owns two (2) vehicles, a forty (40) Seater Fuso Bus and an eighteen (18) seater Toyota Hiace bus, which are both used in his public passenger transportation business.

The Fuso bus became operational on 1 March 2025 and was used every day up to the end of the tax year 2025, generating gross income of K400,000 and incurring operating expenses of K92,000 for the period.

He bought the Toyota Hiace bus on 1 September 2025. It became operational on 10 September 2025 and was used every day up the end of the tax year. It generated gross income of K225,000 and incurred operating expenses of K78,000 for the period.

(3) **Mwanza**

Mwanza runs a business selling motor vehicle spare parts. In the tax year 2025, the business generated a profit as per accounts of K270,000 from an annual turnover of K984,000 which was generated evenly throughout the tax year 2025. The net profit figure was arrived at after deducting Mwanza's annual salary of K168,000, employees' salaries of K100,000, insurance for business premises of K19,000, marketing expenses of K13,600, entertainment expenses for major customers of K20,400, NAPSA penalties of K7,000, and other expenses incurred wholly and exclusively for business purposes of K172,000. The annual turnover from her business has always averaged K984,000 per year.

Required:

(a) Explain how NGN Real Estates Ltd will be assessed to tax in the tax year 2025. Your answer should include a computation of the total tax paid in the tax year 2025. (7 marks)

(b) Explain how Mutale will be assessed to tax in the tax year 2025. Your answer should include a computation of total tax paid in the tax year 2025. (7 marks)

(c) Explainn how Mwanza will be assessed to tax in the tax year 2025. Your answer should include a computation of total tax paid in the tax year 2025. (6 marks)

[Total: 20 Marks]

QUESTION FIVE

You are employed in the tax department of a firm of Chartered Accountants. Your firm is preparing a training workshop for newly recruited Trainee Accountants. The Tax Manager has asked you to prepare notes on the following topics to be used in the training workshop:

(i) Tax Avoidance and Tax Evasion

(ii) The fundamental ethical principles of Integrity and Objectivity

(iii) The residence of companies and individuals

The Tax Manager has also asked you to deal with the tax affairs of Twataizya, a client of your firm. Twataizya went for early retirement from employment eight (8) years ago and used his terminal benefits to start a farming business which has performed well over the past years until 2023/2024 farming season when there was prolonged drought that adversely affected the harvest. In addition to farming, he also runs a retail trading business which supplements his farming activities.

Twataizya prepares his financial statements annually to 31 December. The turnover from his businesses has always exceeded K5,000,000. The following results were obtained for the year ended 31 December 2025:

	K
Profit from farming	1,100,000
Profit from retail	720,000

The following additional information has been made available:

(1) The profit figures from farming and retail trade are the final taxable results after capital allowances.

(2) On 1 January 2025, there was an unrelieved trading loss brought forward from the retail trade of K140,000, that had been incurred in 2024.

(3) The provisional income tax paid in respect of the tax year 2025 is K145,600.

Required:

(a) Prepare notes for the training workshop:

(i) Explaining the differences between Tax avoidance and Tax evasion.

(4 marks)

(ii) Explaining how the ethical principles of integrity and objectivity apply in the provision of taxation services. (4 marks)

(iii) Describing the criteria used to determine the residence of companies and individuals for tax purposes. (5 marks)

(b) Calculate the final amount of income tax payable by Twataizya for the tax year 2025. (7 marks)

[Total: 20 Marks]

END OF PAPER

CA2.4 TAXATION

SUGGESTED SOLUTIONS

SOLUTION ONE

(a) (i) Determination of qualifying cost

	K
Total Cost	300,000,000
Ventilation and heating systems	(13,000,000)
Fire extinguishers	(8,500,000)
Cost of land	(25,000,000)
	253,500,000
K253,500,000 x 10%	25,350,000

The total cost of the non-qualifying part, comprising the administration offices and storeroom for finished goods of K101m (K56m + K45m) is more than K25.35 million. Therefore, they will be classified as commercial buildings and not as industrial buildings.

NOTE:
The fire extinguishers, ventilation and heating systems do not form part of a building structure, they constitute implements plant and machinery.

	K
Factory	
Wear & tear allowance	
(K124,500,000 x 5%)	6,225,000
Initial allowance	
(K124,500,000 x 10%)	12,450,000
Investment allowance	
(K124,500,000 x 10%)	12,450,000
Storeroom for raw materials	
Wear & tear allowance	
(K28,000,000 x 5%)	1400,000
Initial allowance	
(K28,000,000 x 10%)	2,800,000
Investment allowance	
(K28,000,000 x 10%)	2,800,000
Administration offices	
Wear & tear allowance	
(K56,000,000 x 2%)	1,120,000
Warehouse for finished goods	
Wear & tear allowance	
(K45,000,000 x 2%)	900,000
	40,145,000

(ii) COMPUTATION OF CAPITAL ALLOWANCES OM IMPLEMENTS PLANT AND MACHINERY

	K	K
Ventilation and heating systems		

Wear and tear allowance		
K13,000,000 x 25%		3,250,000
Fire extinguishers		
Wear and tear allowance		
K8,500,000 x 25%		2,125,000
Mitsubishi delivery van		
Cost (K649,600 x 25/29)	560,000	
Less total Capital allowances		
K560, 000 x 25% x 2 years	(280,000)	
Income Tax Value b/f at 1 January 2025	280,000	
Proceeds restricted to cost	(560,000)	
	(280,000)	(280,000)
General plant and equipment		
Wear and tear allowance		
K3,770,000 x 25/29 x 25%		812,500
Manufacturing equipment		
Wear and tear allowance		
K17,400,000 x 25/29 x 50%		7,500,000
Toyota Fortuner car		
Wear and tear allowance		
K2,200,000 x 116% x 20%		510,400
Pool motor car		
Wear and tear allowance		
K1,400,000 x 116% x 20%		324,800
Total allowances		14, 242,700
Total marks		

(b) COMPUTATION OF TAXABLE PROFIT

	K	K
Profit as per accounts		100,405,000
Add:		
NAPSA penalties	879,000	
Accommodation benefit (K5,400,000 x 37%)	1,998,000	
Gifts of golf T shirts (K70,000/350 x K250	50,000	
Staff refreshments	154,000	
Hospitality expenses	68,000	
Professional fees - land surveying	165,000	
Recovery of loans from former employee	65,000	
Premium (K1.5m – (K1.5m/15yrs))	1,400,000	
loans to employees written off	265,000	
increase in general provision	386,000	
Provisional income tax	6,175,000	
Depreciation charges	15,400,000	
Loss on disposal of delivery van	76,000	
Personal to holder motor car benefit	57,600	
		27,138,600
Less		127,543,600
Treasury bill discount	3,060,000	

Consultancy fees	3,655,000	
Dividends	2,720,000	
Capital allowances on buildings	40,145,000	
Capital allowances on	14,242,700	
		(63,822,700)
Final Taxable profit		63,720,900

(c) CITEX

COMPANY INCOME TAX COMPUTATION FOR THE TAX YEAR 2025

	K
Taxable business profit	63,720,900
Other income	
Consultancy fees (K3,655,000 x100/85)	4,300,000
Treasury bill discount (K3,060,000 x 100/85)	3,600,000
Taxable income	71,620,900
Company income Tax	
(K71,620,900 x 30%)	21,486,270
Less tax already paid	
WHT on consultancy fees (K4,300,000 x 15%)	(645,000)
WHT on Treasury Bill (K3,600,000 x 15%)	(540,000)
Provisional income Tax	(6,175,000)
Final income tax payable	14,126,270
Total Marks	

(d) PENALTIES AND INTEREST

(1) The balance of income tax relating to the tax year 2025 will be paid late by 4 months and 9 days late (i.e. 132 days) as it should have been paid on 21 June 2026 but will be paid on 31 October 2026.

(2) A penalty of 5% per month of the overdue tax will be chargeable. The amount of the penalty will be:

5% x K14,126,270 x 5 = K3,531,568

(3) Additionally, interest at the BOZ discount rate of plus 2% will arise. The amount of interest payable will be:

14.5% + 2% = 16.5% x K14,126,270 x 132/365
= K842,932

SOLUTION TWO

(a) The basis of assessment for emoluments from employment is the actual receipts basis. This means that emoluments are chargeable to income tax in the year when they are received by the employee. However, due to differences between the time when payments are actually made and when payments become due, the emoluments are deemed to have been received on the earlier of:

(1) The time when payment is actually made

(2) The time when the employee becomes entitled to the emoluments

(b) When income tax deducted under the PAYE system is paid late, the consequences are:

(1) A penalty at the rate of 5% of the unpaid tax is chargeable per month or part thereof: and

(2) Interest on overdue tax s charged at the Bank of Zambia discount rate plus 2% per annum. This interest covers the period from the due date to the date when the tax is actually paid.

(c) BOAS KALULU
PERSONAL INCOME TAX COMPUTATIONS FOR THE TAX YEAR 2025

	K	K
Earned income		
Salary (K672,000 X 7/12)		392,000
Housing allowance (K392,000 X 30%)		117,600
Transport allowance (K392,000 X 25%)		98,000
School children allowance (K3,500 X 2 X 4)		28,000
Electricity bills		18,500
Water bills		15,400
Life insurance premiums		30,600
Free meals (exempt)		0
Performance bonus		45,000
Salary in lieu of notice		0
Repatriation pay		0
Severance pay		0
Accrued leave pay		27,500
Total emoluments		772,600
Less allowable deductions:		
Professional subscriptions	9,400	
Motor car running expenses(K2,800 X7 x 15,000/25,000)	11,760	
Capital allowances (K220,000 X 20% X 15,000/25,000)	26,400	
		(47,560)
Taxable income		725,040
Income tax:		
First K61,200 X 0%		0
Next K24,000 X 20%		4,800
Next K25,200 X 30%		7,560

Balance (K725,040 – K110,400) X 37%	227,417
	239,777
Less PAYE	(208,194)
Income tax payable	31,583

SOLUTION THREE

(a) COMPUTATION OF IMPORT DUTIES ON THE IMPORTATION OF FUSO TRUCK

	$
Cost	20,000
Insurance	3,200
Freight	4,100
Incidental costs	500
VDP	27,800
Exchange rate K24.50	x 24.50
VDP IN ZMW	681,100
TOTAL	

	Value of the vehicle K	Import Taxes K
Customs Value	681800	
Customs duty @ 15%	102,165	102,165
	783,265	
Exercise duty @ 10%	78,327	78,327
	861,592	
Import VAT @ 16%	137,855	137,855
Value of the vehicle	1,000,473	
		318,347

(b) COMPUTATION OF VAT PAYABLE FOR THE MONTH OF JULY 2025

OUTPUT VAT	K	K
Standard rated sales		
(K2,060,000 – K660,000 – K310,000= K1,090,000) x 16%		174,400
Zero rated sales (K660,000 x 0%)		0
Exempt sales		0
Disposal of machinery (K928,000 x 16/116)		128,000
		302,400
INPUT VAT		
Standard rated purchases from registered traders		
Standard rated purchases (K801,560 x 16/116)	110,560	
Zero rated purchases (K62,000 x 0%)	0	
Exempt purchases	0	
Irrecoverable debts written off	0	
Expenditure incurred on entertaining customers	0	
Expenditure incurred on entertaining employees	0	
Telephone bills	0	
Motor vehicle expenses (K141,000 x 85% x 16%)	19,176	
Utility bills (K121,200 – K2,500) x 16% x 85%	16,143	
Toyota Hilux Van (K206,240 x 16/116 x 85%)	24,180	
Nissan Murano Car	0	
		(170,059)
VAT Payable		132,341

Recoverable non-attributable input VAT

Taxable supplies/total supplies

[K1,090,000 + K660,000]/K2,060,000 x 100 = 85%

SOLUTION FOUR

(a) NGN Real Estates Ltd

NGN Real Estates Ltd is generating income from letting out real property and as such was chargeable to rental income tax which was due by the 14th day following the end of each month, throughout the tax year 2025. (2 marks)

The amount of rental income tax paid in the tax year 2025 is computed as follows:

NGN REAL ESTATES LTDCOMPUTATION OF RENTAL INCOME TAX PAYABLE FOR THE TAX YEAR 2025

	K	
Gross Rental income		
Retail shops		
(K15,500 x 20 x 12)		3,720,000
Residential flats		
(K10,000 x 10 x 12)		1,200,000
		4,920,000
Rental income Tax		
On first K12,000 x 0%		0
On next (K800,000 - K12,000) x 4%		31,520
On excess (K4,920,000 - K800,000) x 16%		659,200
		690,720
Rental income tax paid per month		
K690,720/12		57,560

(b) MUTALE

Mutale will be required to pay provisional income tax on his income from the grocery because his total taxable income for the year exceeds K61,200 and the annual turnover is above K5,000,000 and this income is not in form of emoluments which are subjected to PAYE.

The income from the transportation business will be assessed under presumptive taxes for transporters, as he is an individual running a public passenger transportation business.

The tax paid by Mutale in the tax year 2025 will be computed as follows:

MUTALE'S
COMPUTATION OF TAX PAID ON PROFITS FOR THE TAX YEAR 2025

	K
Taxable business profits	1,956,000
Income Tax	
On first K61,200 x 0%	0
On next K24,000 x 20%	4,800
On next K25,200 x 30%	7,560
On excess (K1,956,000 - K110,400) x 37%	682,872
	695,232

MR MUTALE'S
COMPUTATION OF PRESUMPTIVE TAXES PAID FOR THE TAX YEAR 2025

	K
Rosa Bus (K2,592 x 4)	10,368
Toyota Hiace bus (K1,296 x 2)	2,592
	12,960

(c) MRS MWANZA

Mwanza was required to pay turnover tax (TOT) because the annual turnover from her business is below K5,000,000. (1 mark)

The turnover tax was chargeable on the gross turnover without deducting any expenses incurred wholly and exclusively for business purposes and was due on the 14th day following the end of each month throughout the tax year 2025. (1 mark)

COMPUTATION OF TURNOVER TAX PAYABLE IN THE TAX YEAR 2025

	K
Annual turnover	984,000
Turnover Tax	
On first K12,000 x 0%	0
On excess (K984,000 - K12,000) x 5%	48,600
	48,600
Turnover tax per month (K48,600/12)	4,050

SOLUTION FIVE

(a) (i) Tax Avoidance

Tax avoidance involves a tax payer minimizing their tax liabilities by taking advantage of the loopholes or weaknesses in the tax law, thereby obtaining a tax advantage not originally intended by the law.

Tax avoidance is not illegal or an offence, but it defeats the intention or purpose of tax law. Therefore, to discourage its practice, the government usually enacts anti-avoidance tax legislation aimed at sealing the loopholes in tax legislation.

Tax evasion refers to the use of illegal means to avoid or reduce tax liabilities. The aim of the tax payer practicing tax evasion is to defraud government of revenue.

Tax evasion is illegal and a punishable offence

(ii) Integrity

Members shall be straightforward and honest in all professional and business relationships. The principles of honesty and integrity impose an obligation on the practitioner to ensure straightforwardness, fair dealing, a commitment not to mislead or deceive and truthfulness.

This means that a member providing tax services shall ensure that their own personal tax obligations and those of clients are properly discharged. It also means that a member providing taxation services must not knowingly be associated with reports, returns, communications or other information which contains materially false or misleading statement or calculations.

Objectivity

Members shall not allow bias, conflict of interest or undue influence of others to override professional or business judgements. Members shall be impartial and not allow prejudice or bias, conflict of interest or the influence of others to override their objective judgement in relation to tax matters.

(iii) The residence of companies

A company is resident in Zambia for tax purposes if:

(1) The company is incorporated or formed in Zambia; or

(2) The place of effective management and control of that company's business affairs are exercised in Zambia.

The place of effective management refers to the place where key management decisions relating to the operations of the business are in substance made.

Residence of individuals

An individual is regarded as being resident and ordinarily resident in Zambia if that individual is physically present in Zambia for at least one hundred eighty-three (183) days excluding the date of arrival and departure.

Individuals who normally live in Zambia are regarded as being resident and ordinary resident in Zambia ignoring any periods of temporary absence from Zambia in a particular tax year

Individuals who come to Zambia with the intention of staying in Zambia for a period that is expected to exceed twelve (12) months are regarded to be resident and ordinary resident in Zambia from the time of their arrival.

(b) TWATAIZYA

PERSONAL INCOME TAX COMPUTATION FOR THE TAX YEAR 2025

	Total	Non-farming income	Farming income
	K	K	K
Profit from retail trade	720,000	720,000	-
Trading loss b/f	(140,000)	(140,000)	-
	580,000	580,000	-
Profit from farming	1,100,000	-	1,100,000
	1,680,000	580,000	1,100,000
Less tax free income	(61,200)	(61,200)	-
Taxable income	1,618,800	518,800	1,100,000
Tax on non-farming income:			
20% X K24,000		4,800	
30% X K25,200		7,560	
37% X (K518,800 – K49,200)		173,752	
		186,112	
Tax on farming income:			
10% X K1,100,000		110,000	
Income tax liability		296,112	
Less tax already paid:			
Provisional income tax		(145,600)	
Final income tax payable		150,512	

NOTE:

Taxable farming profits in the tax year 2025 that can be used to offset the unrelieved loss from farming brought forward are restricted to K360,000 (50% x 720,000). Since the unrelieved loss from farming brought forward of KK140,000 is below this amount, the whole loss will be relieved.

END OF SUGGESTED SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ZAMBIA APPLICATION ADVANCED DIPLOMA IN ACCOUNTANCY

CA 2.5: FINANCIAL MANAGEMENT

FRIDAY 12 SEPTEMBER 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)

To expand on its capacity to pay dividend, ZIC Investments is considering an investment in a new item of equipment costing K2.2 million and scrap value of K200,000 after five (5) years of active operation. It is expected that after five (5) years the equipment would need significant investment to continue operating. The equipment will be used to produce a new product for launching into the market.

The selling price of the product will be K25 per unit. ZIC Investment has ascertained that the probability of annual demand of 100,000 units is 0.6, with a probability of 0.3 that it will be 25% higher, and a 0.1 probability that it will be 20% lower. The company expects a contribution margin ratio of 55% and annual applicable fixed costs which are uncertain as follows:

Fixed costs (K)	Probability
630,000	0.25
640,000	0.30
680,000	0.24
720,000	0.21

Other allocated fixed overheads costs amount to K300,000 per year. The annual depreciation will be charged on the new equipment on a straight line basis which is equivalent to the capital allowances applicable.

The past dividends and share price for ZIC Investment have been as follows:

Year	Dividend per share (K)	Share Price (K)
1	0.26	5
2	0.27	6.7
3	0.28	7.5
4	0.32	8.0

The earnings for the year were K1.30 per share.

The project will be financed by 40% irredeemable debt comprising of issued bonds of K100 nominal value with annual interest of 9% per year, based on the nominal value. The expected market price of the bonds is K90. However, management are of the view that that debt might result in high financial gearing which can lead to a high P/E ratio. ZIC Investment pays corporate annual tax at 25% in the same year in which profits arise, as the company listed its shares on the Lusaka Securities Exchange ten (10) years ago and 40% of the issued ordinary shares have been held by indigenous Zambians since then.

Required:

(a) Estimate the proposed project minimum expected rate of return. (8 marks)

(b) Evaluate the financial viability of the proposed investment in the new equipment using the Net Present Value method.
(14 marks)

(c) Evaluate the financial viability of the proposed investment in the new equipment using the Internal Rate of Return. (8 marks)

(d) Determine the dividend yield and P/E ratio for ZIC investment. (4 marks)

(e) Discuss whether you agree with the view by management that a high financial gearing can lead to high P/E ratio. (6 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt any THREE (3) questions.

QUESTION TWO

DST Plc is a long established listed company in the retail industry. It is considering the acquisition of the entire share capital of Menap Ltd, a company in the manufacturing industry. The Directors of DST Plc believe that if Menap Ltd is acquired, the business risk of DST will not be affected.

The forecast statement of financial position of Menap Limited as at 31 December 2025 is as follows:

	K
Non- Current Assets (Net Book Value)	1,303,200
Current Assets	
Inventory	1,031,800
Receivables	1,490,000
Cash at bank	316,200
Total assets	**4,141,200**
Equity & Liabilities	
Issued ordinary shares of K10 each	100,000
Reserves	808,200
Current Liabilities	
Trade Payables	1,507,200
Bank Overdraft	1,725,800
Total Equity and Liabilities	**4,141,200**

Menap Ltd.'s Profits after tax (PAT) for the last five (5) years has been as follows:

Year	2021	2022	2023	2024	2025 (forecast)
PAT (K)	66,600	133,600	86,600	76,800	104,400

The following additional information is available.

(1) Menap Ltd has maintained a dividend payout ratio of 40% for the last five (5) years.

(2) It is expected that 4% of Menap Ltd receivables at 31 December 2025 will be uncollectable.

(3) On 31 December 2025 non-current assets of Menaps are expected to have a Net realizable value of K900,000 and a replacement cost of K1,450,000.

(4) On 31 December 2025 the inventory of Menaps is expected to have a net realizable value of K1,140,000 and a replacement cost K1,100,000.

(5) DST Plc has a cost of capital of 10%. The Directors of Menap ltd estimate that the shareholders require a minimum return of 14% per annum from their investment in the company.

Required:

(a) Calculate the value of Menap Ltd based upon:

(i) The statement of financial position. (2 marks)

(ii) The replacement cost of the assets. (2 marks)

(iii) The realizable value of the assets. (2 marks)

(iv) Dividend valuation basis. (4 marks)

(b) Explain the practical considerations in the valuation of shares and businesses. (10 marks)

[Total: 20 Marks]

QUESTION THREE

Helm Limited is a company in the manufacturing industry. The company is currently using the conservative approach of working capital management. You are the Director of Finance of the company responsible for the treasury function. You are provided with the following forecast data for the next six (6) months:

	K'million
Receivables	5
Cash at bank	4
Inventory	1
Non-current assets	2.5
Current liabilities	3.7
Sales	16

The operating profit is forecast at 20% of sales.

You wish to evaluate the likely effect on the company if it introduced the aggressive approach to working capital management. This approach is expected to reduce receivables and inventory by 40% and cash by K150,000. It is estimated that the figure for non-current assets will not change. However, forecast sales will reduce by 8% and current liabilities will reduce by 30%.

Required:

(a) Discuss the key areas of accounts receivable management. (8 marks)

(b) Calculate the changes in the receivables turnover ratio, return on net assets and the current ratio assuming that the company adopts the "aggressive policy". (6 marks)

(c) Recommend a proposed course of action for the company based on your computations above and other relevant information and describe what further action is required before a final decision is made. (6 marks)

[Total: 20 Marks]

QUESTION FOUR

Roland Limited is a profitable company which is considering the purchase of equipment costing K352,000 which would be financed by borrowing. The equipment has a useful life of four (4) years and is expected to have no residual value at the end of that time. Alternatively, the equipment could be leased for four years at annual lease rentals of K110,000 payable annually in advance.

If purchased the machine would attract capital allowances of 25% on reducing balance basis per annum. If leased, the rental would be allowed fully against tax. Corporation tax is 30% and is paid one year in arrears.

The pre-tax cost of borrowing for Roland is estimated to be 20%.

Required:

(a) Discuss the features of a finance lease. (6 marks)

(b) Advise Roland whether to buy or lease the equipment on the assumption that the company is:

(i) In a tax paying position. (8 marks)

(ii) In a permanent non-tax paying position. (3 marks)

(c) Explain any other three (3) factors to be considered when the company is making the lease or buy decision. (3 marks)

[Total: 20 Marks]

QUESTION FIVE

Montel Plc wishes to expand its business operations by opening a new branch. This expansion program will be financed by raising funds from existing shareholders through a one (1) for five (5) rights issue. The company generated profits from operations of K24 million in the year 2024. This was after generating sales revenue of K325 million. The interest on debt for the year 2024 was K12.5 million.

The share capital of the company consists of 130 million ordinary shares with a par value of K20 per share. The shares of the company are currently being traded on the stock exchange at a price earnings ratio of twenty-five (25) times. During a recent meeting of the Board of Directors it was agreed that the new shares should be issued at a 30% discount to the current market value.

Corporation tax is 30% per annum and Montel Plc paid ordinary dividends of K3 million in the year 2024.

Required:

(a) Explain three (3) advantages and three (3) disadvantages of Montel Plc financing the expansion by way of a rights issue. (6 marks)

(b) Calculate the theoretical ex-rights price of an ordinary share in Montel Plc. (6 marks)

(c) Calculate the price at which the rights in Montel Plc are likely to be traded. (2 marks)

(d) Evaluate, at the time of the rights issue, each of the options arising from the rights issue to an investor who holds 5,000 ordinary shares before the rights announcement.

(6 marks)

[Total: 20 Marks]

END OF PAPER

Formulae

Modigliani and Miller Proposition 2 (with tax)

$$k_e = k_e^i + (1 - T)(k_e^i - k_d)\frac{V_d}{V_e}$$

Two asset portfolio

$$s_p = \sqrt{w_a^2 s_a^2 + w_b^2 s_b^2 + 2 w_a w_b r_{ab} s_a s_b}$$

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.

CA 2.5 FINANCIAL MANAGEMENT

SUGGESTED SOLUTIONS

SOLUTION ONE

(a) Minimum expected rate of return

The minimum expected rate of return will be computed as the Weighted Average Cost of Capital using the following steps:

We can now find the average rate of growth by using the following formula:

$$\text{Growth rate (g)} = \sqrt[n]{\frac{\text{Latest dividend}}{\text{Earliest dividend}}} - 1$$

where n = number of years' growth.

$$g = \sqrt[3]{\frac{0.32}{0.26}} - 1 = 0.072 \text{ or } 7.2\%.$$

$$Ke = \frac{0.32(1.072)}{8.00} + 0.072 = 0.043 + 0.072 = 11.5\%.$$

Kd = 9(1-0.25)/90 = 7.5%

WACC = (11.5% x 0.6) + (7.5% x 0.4) = 9.9% round off 10%

(b) FINANCIAL EVALUATION USING THE NPV

	1	2	3	4	5
Contribution	1,450,625	1,450,625	1,450,625	1,450,625	1,450,625
Fixed Costs	(663,900)	(663,900)	(663,900)	(663,900)	(663,900)
Profit before tax	786,725	786,725	786,725	786,725	786,725
Tax @25%	(196,681)	(196,681)	(196,681)	(196,681)	(196,681)
Tax savings on CA	100, 000	100,000	100,000	100,000	100,000
Scrap value					200000
Net Cash flow	**690,044**	**690,044**	**690,044**	**690,044**	**890,044**
DF@10%	0.909	0.826	0.751	0.683	0.621
PV of Cash flows	627,250	569,976	518,223	471,300	552,717
Sum of PV of Cash flows	2,739,466				
Initial cost	-2,200,000				
NPV	539,466				

The project is financially viable as it provides a positive NPV of 539,466 meaning the wealth of shareholders will be increased.

Workings

(1) Expected demand

(100,000 × 0.6) + (125,000 × 0.3) + (80,000 × 0.1)

= 105,500 units

(2) Expected contribution

= 105,500 × 55% × K25
= K1,450,625 per year.

(3) Expected fixed overheads

= (630,000 × 0.25) + (640,000 × 0.30) + (680,000 × 0.24) + (720,000 × 0.21)
= K663,900 per year

(4) Capital Allowances = $\frac{\text{K2, 200,000 - K200,000}}{5}$ = K400,000

(5) Tax saving on capital allowances

= K400,000 x 25%

= K100,000

(c) FINANCIAL EVALUATION USING THE INTERNAL RATE OF RETURN

Years	1	2	3	4	5
Net Cash flow	690,044	690,044	690,044	690,044	890,044
DF@15%	0.870	0.756	0.658	0.572	0.497
PV of Cash flows	600,338	521,673	454,049	394,705	442,352
Sum of PV of Cash flows	2,413,117				
Initial cost	-2,200,000				
NPV	213,117				

IRR = 10% + 539,466/ 539,466 +213,117 (15%-10%) = 18.3%

The project is financially viable since the IRR is greater than the cost of capital and therefore, will increase the wealth of shareholders.

(d) **Dividend yield and P/E Ratio**

Dividend yield = $\frac{\text{DPS}}{\text{MPS}}$

= $\frac{0.32}{8.00}$ x 100%

= 4%

P/E = $\frac{\text{MPS}}{\text{EPS}}$

= $\frac{8.00}{1.30}$

= 6.15

(e) **Financial gearing**

The financial gearing of the firm expresses the relationship between debt and equity in the capital structure. A high level of gearing means that there is a high ratio of debt to equity. This means that the company carries a high fixed interest charge, and thus the amount of earnings available to equity will be more variable from year to year than in a company with a lower gearing level. Thus the shareholders will carry a higher level of risk than in a company with lower gearing. All other things being equal, it is therefore likely that the share price in a highly geared company will be lower than that in a low geared firm.

The historic P/E ratio is dependent upon the current share price and the historic level of earnings. A high P/E ratio is therefore more likely to be found in a company with low gearing than in one with high gearing. In this case the view of management is wrong and should be corrected.

Marking Key

S/n	Description	Mark Allocation
a)	Cost of equity	4
	Cost of debt	2
	WACC	2
b)	Expected demand	2
	3 marks per Contribution and fixed costs	6
	Investment cost and scrap	1
	Tax relief on CA	3
	Correct NPV and conclusion	2
c)	1 mark per variable	4
	IRR	3
	Conclusion	1
d)	2 mark per dividend yield and P/E ratio	4
	1-2 marks per valid point discussed	6
	Total	40

SOLUTION TWO

(a) (i) Statement of financial position value

Value = 4,141,200 – (1,507,200 + 1,725,800)
= **K908,200**

(ii) Replacement cost value

Value = K908200+ (K1,450,000 - K1,303,200)+ (K1,100,000-K1031,800)
= **K1,123,200**

(iii) Realizable value

Value = K908200+(K900,000-K1,303,200) + (K1,140,000-K1031,800) – K59,600

= **K553,600.**
Bad debts are 4%x K1490000=K59,600

(iv) Dividend growth model

Computation of dividends growth

Latest dividend = 40% x K104,400 = K41,760
Earliest dividend = 40% x K66,600 = K26,640

K26,640(1+g)^4 = K41,760
(1+g)^4 = K41,760/K26,640
(1+g)^4 = 1.568
1+g = 1.568^0.25
1+g=1.119
G=11.9%

Market Value = [K41,760 (1+0.119)]/0.14-0.119
= (41,760X1.119) /0.021
=**K2,225,211.43**

(b) Considerations in share valuation

(1) The fundamental theory of share values states that the realistic market price of a share can be derived from a valuation of estimated future dividends. The value of a share will be the discounted present value of all future expected dividends on the shares, discounted at the shareholders cost of capital.

If the fundamental analysis theory of share values is correct the price of any share will be predictable, provided that all investors have the same information about a company's expected

future profits and dividends and known cost of capital. However, share prices are also affected by a number of other factors.

(2) Marketability and liquidity of shares.

In financial markets liquidity is the ease of dealing in the shares, how easily can the shares be bought and sold without significantly moving the price?
In general, large companies with millions of shares in issue and high number of shares changing hands everyday have good liquidity. In contrast small companies with few share in issue and thin trading volumes can have very poor liquidity.
The marketability of shares in a private company particularly a minority shareholding is generally very limited, a consequence being that the price can be difficult to determine.

(3) An efficient market is one where the prices of securities bought and sold reflect all the relevant information available. Efficiency relates to how quickly and how accurately prices adjust to new information. Information comes from financial statements, financial databases, the financial press and the internet.

It has been argued that shareholders see dividend decisions as passing on new information about the company and its prospects. A dividend increase is usually seen by markets to be good news and a dividend decrease to be bad news, but it may be that the market will react to the difference between the actual dividend payments and the market's expectations of the level of dividend. For example, the market may be expecting a cut in dividend, but if the actual decrease is less than expected the share price may rise.

(4) Market imperfections and pricing anomalies.

Various types of anomaly appear to support the views that irrationality often drives the stock market including the following:

(i) Seasonal month of the year effects, day of the week effects and also hour of the day effects seem to occur so that share prices might tend to rise or fall at a particular time of the year, week or day.
(ii) There may be a short run overreaction to recent events for example the stock market crash in 1987 when the market went into a free fall losing 20% in a few hours.
(iii) Individual shares or shares in small companies may be neglected.

(5) Market capitalization.

The market capitalization or size of a company has also produced some pricing anomalies. The return from investing in smaller companies has been shown to be greater than the average return from all companies in the long run. This increased return may compensate for the greater risk associated with smaller companies.

(6) Investor speculation

Speculation by investors and market sentiment is a major factor in the behavior of share price. Behavioural finance is an alternative view to the efficient market hypothesis. It attempts to explain the market implications of the psychological factors behind investor decisions and suggests that irrational investor behavior may significantly affect share price movements. These factors may explain why share prices appear sometimes to overreact to past price changes.

SOLUTION THREE

(a) The key areas of accounts receivable management:

(1) Formulation of policy

A framework needs to be established within which the management of accounts receivable in an organisation takes place. Elements of the framework to be considered include establishing the terms of trade such as the period of credit offered and early settlement discounts.

(2) Assessment of credit worthiness.

Information relating to a new customer needs to be analyzed. The information may come from bank references, trade references or credit reference agency reports.

(3) Credit control.

Accounts receivable payment records must be monitored continually. This depends on successful sales ledger administration. A system of in-house credit ratings can be used. A customer's payment record and the accounts receivable aged analysis should be examined regularly.

(4) Collection of amounts overdue.

A company needs to have in place agreed procedures for dealing with overdue accounts. For examples issuing reminders or final demands or chasing payments by telephone.

(b) COMPUTATION OF CHANGES IN RATIOS

	Conservative (current)	%Change	Change in (K)	Aggressive
POLICY	KM			KM
Receivables	5	-40%	(1)	3
Inventory	1	-40%	(0.4)	0.6
Cash at bank	4		(0.15)	3.85
Current assets	10			7.45
Current Liabilities	3.7	-30%	(1.11)	2.59
Net current assets	6.3			4.86
Non-current assets	2.5			2.5
Net assets	8.8			7.36
Forecast sales	16	-8%	(1.28)	14.72
Operating profit margin	20%			20%
Forecast operating profit	3.2			2.94
Return on net assets	36.36%			39.94%
Receivables turnover ratio	3.2			4.9
Current ratio	2.7			2.9

(c) Recommended course of action

Substantial funds can be released (K8.8M-K7.36M = K1.44) by moving from a conservative to an aggressive working capital position. These funds can be repaid to shareholders, invested or used to reduce borrowings depending on the company's situation.

The use of modern techniques is also recommended. The key changes that need to be made in our firm are concerned with the adoption of modern supply chain and manufacturing techniques.

These will enable us not only to reduce working capital while avoiding system breakdown but also to improve quality and flexibility and to increase customer demand. At the moment we have modern equipment but are not taking full advantage of its potential. I therefore recommend that a comprehensive study of our key business processes is undertaken.

SOLUTION FOUR

(a) The features of finance leases.

A finance lease is an agreement between the user of the leased asset and a provider of finance that covers the majority of the assets' useful life.

Key Features of a finance lease.

(1) The provider of finance is usually a third party finance house and not the original provider of the equipment.
(2) The lessee is responsible for the upkeep servicing and maintenance of the asset.
(3) 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 machine to someone else because it would be worn out.
(4) 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 "peppercorn rent".
(5) The lessee bears most of the risks and rewards and so the asset is shown in the lessee's statement of financial position.

(b) (i) Assuming that the company is in a tax paying position, the evaluation will be as follows:

COMPUTATION OF NET PRESENT VALUE OF PURCHASE OPTION

Year	Plant	Tax	Cash flow	Df @ 14%	NPV
	K000	K000	K000		K000
0	(352)		(352)	1	(352)
1			0	0.877	0.00
2		26.4	26.4	0.769	20.30
3		19.8	19.8	0.675	13.37
4		14.85	14.85	0.592	8.79
5		44.55	44.55	0.519	23.12
				NPV Cost Of Buying	(286.42)

WORKINGS

(1) After tax cost of borrowing 20% x (1-0.3) = 14%

(2) Tax savings on capital allowances

Year	K000	CA @ 30%	Year of Claim
1	352 x 25% = 88	26.4	2
2	(352-88) x 25%= 66	19.8	3
3	(352 - 88 – 66) x 25% = 49.5	14.85	4
4	Balance (352-88-66-49.5) = 148.5	44.55	5

COMPUTATION OF NET PRESENT VALUE OF LEASE OPTION

The NPV cost of leasing the equipment can be calculated using the discount rate of 14%.

Year	Lease	Tax saving	Cash Flow	Disc Factor	NPV
	K000	K000	K000	14%	K000
0	(110)		(110)	1	(110)
1	(110)	33	(77)	0.877	(67.5)
2	(110)	33	(77)	0.769	(59.2)
3	(110)	33	(77)	0.675	(52)
4		33	33	0.592	19.5
				NPV cost of leasing	(269.2)

The NPV cost of leasing is lower than buying using a bank loan and is therefore financially more advantageous to Roland.

(ii) Position assuming company is in a permanent non-tax paying position.

If the company is in a permanent non-tax paying position, then the alternative sources of finance can be evaluated on their direct NPV costs excluding capital allowances.

The NPV cost of purchase in year 0 is K352,000.

The NPV cost of leasing can be found by multiplying the annual rental payments in years 1 to 3 by the value of a 3 year annuity at 20% and adding this to the year 0 PV of K110,000. Since the company is not paying tax , it will be unable to receive the tax benefits of any interest payments and therefore the pre-tax cost of borrowing (i.e 20%) will be used to evaluate the lease.

NPV = K110,000+(2.106 X K110,000)= K341,660

Leasing is still therefore more financially advantageous than buying.

(c) Other factors to be considered when the company is making the lease or buy decision.

(1) Running expenses.

It is assumed in the calculations that these are the same under the two financing alternatives. However in practice items such as insurance, maintenance etc. may vary.

(2) Current liquidity.

The effect of taking out and servicing an immediate loan of K352,000 on the overall liquidty and borrowing capacity must be considered.

(3) Accuracy of estimates.

The company must be certain that the life of the machine has been estimated correctly at four years. If there is a possibility that the life could be shorter than this then the alternatives should be re-evaluated.

(4) Effects on reported profits.

The effect of the alternatives on the reported profits should be taken into account, since this in turn could affect the dividend policy and therefore the valuation of the company shares.

(5) Change in interest rate

The calculation assumes that the interest rate will be fixed for the life of the machine. If the rate changes then this will have financial implications which should evaluated.

SOLUTION FIVE

(a) Advantages and disadvantages of rights issues.
Advantages of Rights Issues

(i) Rights issues are cheaper than offers for sale to the general public. This is because no prospectus is generally required, partly because the administration is simpler and partly because the cost of underwriting will be less.
(ii) Rights issues are more beneficial to existing shareholders than issues to the general public. New shares are issued at a discount to the current market price, to make them attractive to investors.
(iii) Relative voting rights are unaffected if shareholders all take up the rights.
(iv) The finance raised may be used to reduce gearing in book value terms by increasing share capital and /or to pay off long-term debt which will reduce gearing in market value terms.

Disadvantages of Rights issues

(i) The amount of finance that can be raised by rights issues of unquoted companies is limited by the funds available to existing shareholders.
(ii) Choosing the best issue price may be problematic. If the price is considered too high, the issue may not be fully subscribed, if too low, the company will not have raised all the funds it conceivably could have done.
(iii) During the time between the announcement of the rights issue and the date of subscription, the market price of shares may fall, and the issue price of rights will be above the market price, with the result that the rights issue will fall.
(iv) Rights issue can't be used to widen the base of shareholders.

(b) Computation of the Theoretical ex rights price

This will be computed by using the following steps:

(1) Computation of Earnings Per Share

	KM'
Operating profits	24
Interest	(12.5)
Profit before tax	11.5
Taxation @ 30%	(3.45)
Profit after tax	8.05
Dividend	(3.0)
Retained earnings	5.05
Earnings per share	8.05/130 = K0.062

(2) Computation of current share value

Using the PE ratio the current Market price per share is	
(EPS x PE = K0.062 X 25)	K1.55 per share
Rights issue price is therefore:	
(K1.55 per share x (1 - 0.30)	K1.085

(3) The theoretical ex-rights price

Original shares 5 at K1.55	K7.750
Rights share 1 at K1.085	K1.085
	K8.835
Theoretical ex rights price following the rights issue	
K8.835/6	= K1.4725

(c) The Value of rights attaching to existing shares

	K
Value of share following rights issue (TERP)	1.4725
Cost of acquiring a rights share	1.0850
Value of rights	0.3875

(d) Evaluation of options

(i) Take up rights issue	K
Value of holding after rights issue [(5000 + 1000) x K1.4725]	8,835
Less cost of acquiring rights shares(1000 x K1.085	(1,085)
	7,750

(ii) Sale the rights	
Value of holding after rights issue (5000 x K1.4725)	7,362.50
Add sale of rights (1000 x 0.3875)	387.50
	7,750

(iii) Do nothing	
Value of holding after rights issue (5000 x K1.4725)	7,362.50

ALTERNATIVELY

(i) Take up rights issue	K
Current MV of 5,000 shares cum rights (5,000 x K1.55)	7,750
Additional investment required 1/5 x 5,000 = 1000 shares x K1.085	1,085
Total value of investment	8,835
Compared with: Value of holding after rights issue [(5000 + 1000) x K1.4725]	8,835

(ii) Sale the rights	
Current MV of 5,000 shares cum rights (5,000 x K1.55)	7,750
Compared with Value of holding after rights issue (5000 x K1.4725)	7,362.50
Add proceeds from sale of rights (1000 x 0.3875)	387.50
	7,750

(iii) Do nothing	
Current MV of 5,000 shares cum rights (5,000 x K1.55)	7,750.00

Compared with	
Value of holding after rights issue (5000 x K1.4725)	7,362.50
Loss in wealth	397.50

The above calculation shows that the investor will be in the same financial position whether the rights offer is taken up or sold.

If the investor does nothing and, therefore allows the rights issue to lapse, he/she will be worse off than under the other two options. However, in practice a company may sell, on behalf of the investor, any rights not taken up and pay over the proceeds in order to ensure the investor is no worse off. This is done subject to there being a certain minimum value for the rights.

END OF SUGGESTED SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA APPLICATION ADVANCED DIPLOMA IN ACCOUNTANCY

CA 2.6: STRATEGIC BUSINESS ANALYSIS

WEDNESDAY 10 SEPTEMBER 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)

Collaborative Ventures in the Pharmaceutical Industry

Collaboration between potential competitors and with buyers may help improve competitive positioning.

In a pharmaceutical industry, companies are faced with rapid scientific and technological change, high cost of research and development, high risk of failure and increasing buying power. Collaborations through a variety of different alliances has become common.

Collaboration between Potential Competitors to enter Markets

Japanese pharmaceutical companies, lacking historical presence in the UK, entered into collaborative sales and marketing agreements with existing strong industry players in order to gain entry. Astra, a Swedish company with strong position in the UK, took the lead in a joint promotion to market Takeda's candesartan (tradename Amias) in the UK, for treatment of hypertension. Takeda and Astra would normally be competitors with brands Zoton and Losec in the gastrointestinal market. However, the collaborative arrangement on Amias allowed Astra to strengthen its position with cardiovascular products. In turn, Takeda gained market entry knowledge, allowing it to establish a credible UK market position from which to launch new products, the first of which was for diabetes, an area in which neither Astra nor Takeda had a strong position.

Collaboration to reduce the Threat of Competition

In the UK, Ashbourne Pharmaceuticals had a strong position in the dispensing doctor of the market. Ashbourne specialized in providing alternative brands to the market leader but also entered in arrangements with other companies to consolidate its own market position and provide them with increased revenues and avoid head-on competition. For example, Eli Lilly, a minor player in the gastro-intestinal ulcer market, co-operated with Ashbourne's brand, Zinga. This allowed Eli Lilly's molecule to compete successfully and displace Glaxo's Zantao within doctors dispensing segment – something which Eli Lilly had been unable to achieve itself.

Collaboration for Innovation

The Human Genome Project (HGP) is an international fifteen (15)-year effort to discover the key 60,000 – 80,000 human genes and make them accessible for further biological study. The huge cost of this programme was borne by means of collaboration between pharmaceutical companies and academia, thus allowing more effective targeting of their research and development efforts.

Collaboration between Suppliers and Buyers to Gain Entry and Share Risks

Roche produced a high priced product, Pulmozyme, for treating cystic fibrosis. Whilst effective in many cases, the treatment did not work for all patients. Roche entered into agreements with health authorities to share the risk of the treatment, thus gaining wider distribution; whilst health

authorities, increasingly subject to budget restrictions, could purchase against the achievement of agreed outcome criteria in the treatment of patients.

Collaboration to Reduce Costs

In the developing area of disease management, pharmaceutical companies and health providers, such as hospitals, agreed to share savings resulting from the optimal management of a defined medical condition. Salick, owned largely by Zaneca, did this for cancer treatment and Eli Lilly for diabetes programs.

Source: Johnson G and Scholes K. Exploring Corporate Strategy, 5 Edition, Prentice Hall Europe (1999), Page 125

Required:

(a) Provide any two (2) potential benefits and any one (1) risk to the parties involved for each of the collaborative ventures in the pharmaceutical sector above. (15 marks)

(b) Although Strategic Alliance and Collaboration are used interchangeably in business circles, they are different. Identify and explain any three (3) differences. (9 marks)

(c) Demonstrate any four (4) reasons why companies decide to enter into long-term Strategic alliances with other companies in the home or foreign markets. (12 marks)

(d) State any four (4) factors that a company should consider in choosing these alliance partners as suggested by Hooley et al 2008. (4 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt any THREE (3) questions.

QUESTION TWO

The concept strategic planning has changed dramatically between the 1960's and 1970's. Having survived its original design flaws, to date, it has evolved into a practical system of strategic management. Planning systems, in fact, have become more sophisticated in their selection of planning approach and techniques. The approach to the strategic plan should involve different methods and techniques, more complete and more sensitive to the critical uncertainty of many of the variables that planning must address without questioning ethical issues. There are differing views about the extent to which the external person modify business and form boundaries to the extent of management decision. This change represents a recognition of the basis of a strategic plan that are able to determine its success.

Required:

(a) Evaluate the stakeholder view and consensus theory of company objectives in relation to concept of Strategic Planning. (10 marks)

(b) Discuss the five (5) stages involved in strategic planning. (10 marks)

[Total 20 Marks]

QUESTION THREE

Most companies failed to grow because they have not employed qualified Accountants who appreciated the financials. Qualified Accountants understand how to plan and understand the financial risks associated with businesses. As part of business risk analysis different forecasts should be prepared with changing financial and business variables. In a well-designed forecast, a number of "what if" questions need to be asked.

Required:

(a) Discuss four (4) economic and four (4) business variables that Accountants need to be monitoring constantly. (8 marks)

(b) Describe the ratios that the following Stakeholders-Investors, Managers and lenders are interested in. (6 marks)

(c) Explain any three (3) limitations of Ratio Analysis. (6 marks)

[Total: 20 Marks]

QUESTION FOUR

A well conducted corporate appraisal using the SWOT model provides a good strategic choice. However, managing strategic Capability has been a challenge by most of the Accounting Managers. As a new Manager at Juntex Company, Ms. Faith Chitetekelo is trying to understand the Strategic plan for Juntex Company. Reading the book by Johnson et al (2005), she has discovered that there is a challenging problem in the management of strategic capabilities in that it can be difficult to understand it properly.

Required:

(a) Evaluate four (4) important elements of strategic options that can be faced by Ms. Chitetekelo by using the appropriate matrix. (12 marks)

(b) Suggest four (4) ways in which a manager can stretch existing opportunities to improve strategic capabilities as presented by Johnson et al (2005). (8 marks)

[Total: 20 Marks]

QUESTION FIVE

The evolution of Technology and the development of Artificial intelligence (AI) has changed the business environment. The fast internet technology has facilitated communication linkages worldwide. Managers must keep in pace and adopt Strategic information systems that can be used to set the objectives of the organization. The system includes Executive information system (EIS), Management Information System (MIS) and Decision Support Systems (DSS).

Required:

(a) With the aid of diagram, draw a model of a typical EIS and outline some of its features used by Managers. (10 marks)

(b) By using Porters five (5) forces model, discuss how Artificial Intelligence (AI) can be used by the company to create a competitive advantage. (10 marks)

[Total: 20 Marks]

END OF PAPER

CA 2.6 STRATEGIC BUSINESS ANALYSIS

SUGGESTED SOLUTIONS

SOLUTION ONE

(a) Benefits and Risks from the five types of Collaboration:

Type of Collaboration	Benefits	Risks
Potential Competitors to enter market	Improved Communication Better risk management Improved Culture More coordinated Approach Mutual support between organizations	Loss of Flexibility Complexity in Decision making and Autonomy Lack of awareness of legal obligations
Threat of Competition	Better Risk management Diverse Perspective Strong United Voice	Outcome does not justify the time and resources invested. Loss of flexibility Potential competition between partners Stakeholders confusion
For Innovation	Enhanced Innovation Increase productivity Competitive Advantage	Damage to or dilution of a company's brand & reputation Damage to organization and waste resources if project is unsuccessful Lack of awareness of legal Obligations
Suppliers & Buyers to Gain entry & Share risk	Increase Productivity Competitive advantage	Lack of Clarity and consistence on roles and responsibilities Stakeholder Confusion Diverting energy & resources away from core aims and mission
To Reduce Cost	Competitive advantage Mutual Support Between Organizations Increased Productivity	Resistance to Change Loss of flexibility in decision making Damage to or dilution of the company's brand and reputation

(b) The differences between Collaboration and Strategic Alliance include:

(i) Scope – Collaboration can encompass a wide range of joint activities, while a strategic alliance is typically focused on a specific goal with long-term perspective.
(ii) Formal Agreement – A strategic alliance often involves a formal agreement outlining the terms of the partnership, responsibilities, and shared benefits, whereas collaboration can be more informal.
(iii) Independence – In a strategic alliance, each company maintains its independent operations while collaborating on agreed-upon project.

(c) Some firms enter long-term strategic alliances with others for a variety of reasons that include the following:

(i) They share development costs of a particular technology
(ii) The regulatory environment prohibits take-overs,
(iii) Complimentary markets or technology
(iv) Alliances can be a learning exercise in which each partner tries to learn as much as possible from the other.
(v) New technology offers many uncertainties and many opportunities. Such alliances provide funds for expensive research projects, spreading risk.
(vi) The alliance itself can generate innovation.
(vii) The alliance can involve "testing the firm's core competences in different conditions, which can suggest ways to improve it.
(viii) Regulations may prevent takeover.

(d) Hooley et al (2008) suggested the following factors that should be considered in choosing alliance partners:
(i) Drivers – What benefits are being offered in the collaboration?
(ii) Partners – Which partner should be chosen?
(iii) Facilitators – Does the external environment favor a partnership?
(iv) Components – Activities and processes in the network
(v) Effectiveness – Does the previous history of alliances generate good results? Is the alliance just a temporary arrangement?
(vi) Market orientation – Alliance partners are harder to control and may not have the same commitment to the end-user.

SOLUTION TWO

(a) **Business objectives and management discretion.**

There are differing views about the extent to which external pressures modify business objectives and form boundaries to the exercise of management discretion.

The stakeholder view of company objectives is that many groups of people have a stake or legitimate interest in what the company does. Shareholders own the business but there are also suppliers, managers, workers and customers. A business depends on appropriate relationships with these groups, otherwise it will find it hard to function. Each of these groups has its own objectives, so that a compromise or business is required.

The consensus theory of company objectives was developed by Cyert and March. They argued that managers run a business, but do not owe it and they do not necessarily set objectives for the company, but rather they look for objectives which suit their own inclinations. Objectives emerge as a consensus of the differing views of shareholders, managers, employees, suppliers customers and society at large, but in contrast to the stakeholder view they are not all selected or controlled by management.

(b) Discuss the Five (5) stages involved in strategic planning.

Strategic planning involves:

- **Setting Objectives:** Defining clear, achievable goals.
- **Environmental Scanning:** Analyzing internal and external factors that impact the organization.
- **Strategy Formulation:** Developing strategies to achieve the objectives.
- **Implementation:** Executing the strategies through detailed action plans.
- **Monitoring and Evaluation:** Tracking progress and making necessary adjustments to stay on course.

SOLUTION THREE

(a) Discuss four (4) economic and four (4) business variables that Accountants need to be monitoring constantly:

Economic Variables;

- Market Prices- changes in prices affect demand.
- Inflation- this is measure of the performance of the economy
- Exchange rates-measure the performance of the local currency against other foreign currencies.
- Bank interest rates- this is an indication of the fiscal and monetary policies of the Government.
- Market trends- helps with understanding the factors affecting demand and also helps with forecasting demand and future performance.

Business variables

- Changes in sales- this reflects growth and market share
- Cost factors- these affect anticipated profit
- Competitor activities- may affect revenue, growth and future opportunities/threats
- Supply factors- theses bear on the cost of inputs
- Cashflow cycles- affect liquidity
- Stakeholder interests- may affect future operations

(b) Describe the ratios that the following interested in and why?

(i) Investors: Risk vs return pertaining to their investment; dividends, Price-Earning ration; levels of debt Vs equity ratios. As well as profitability ratios

(ii) Lenders and suppliers: liquidity ratios like Current ratios and Operating Cash flow ratios

(iii) Managers- efficiency ratios such as Asset turn over ratios, inventory ratios; and also profitability ratios

(c) Limitations of Ratio Analysis

(i) Lack of availability of comparable information- when comparing data with other companies, the data may just not be available or the industry averages may hide variations in figures.

(ii) Use of historical data-use of previous data may not take into account the changes made. The information may be out of date

(iii) Ratios are not definitive- companies with worse ratios than the industry averages still survive.

(iv) Need for careful interpretation- comparison with other companies may not reflect other factors at play.

(v) Manipulation- the choice of accounting policies used may affect ratios.

(vi) Other information- ratio analysis on its own is insufficient. There are other factors that need to be considered as well.

SOLUTION FOUR

(a) Discuss four (4) important elements of strategic options as categorized by Weihrich (1982) matrix.

Weihrich is the TOWS matrix to emphasize the importance of threats and opportunities

SO strategies employ strength to seize the opportunities

ST strategies employ strength to counter or avoid threats

WO strategies address weakness so as to be able to exploit opportunities

WT strategies are defensive, aiming to avoid threats

(b) Discuss Four (4) ways in which a manager can stretch exiting opportunities to improve strategic capabilities as discussed by Johnson et al (2005)

(i) Competences can be extended

(ii) Non-essential activities can be ceased in order to make some cost saving

(iii) Best practices can be extended

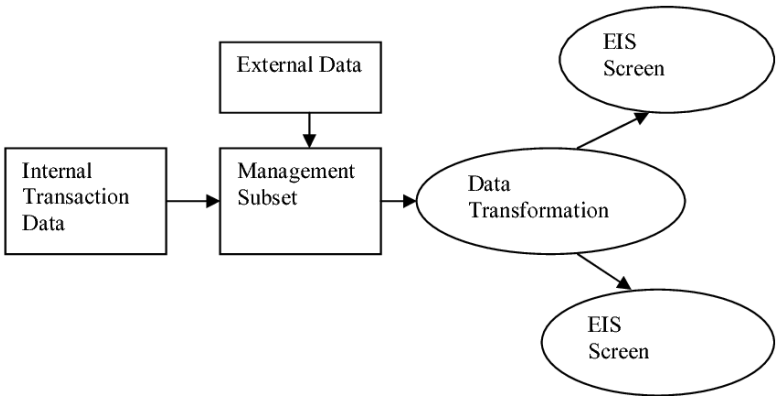
(iv) Activities can be extended

(v) Activities can be restructured

(vi) External capabilities can be introduced

SOLUTION FIVE

(a) With the aid of diagram, draw a model of a typical EIS and outline some of its features.
Executive Information System (EIS) model.



EIS features: (3 x 1 mark each)

- Flexibility
- Quick response to time
- Sophisticated data analysis and modeling tools

(b) By using Porters five forces, explain clearly how information system can be used by the company to create a competitive advantage

The following can the used to create a competitive advantage using Porters five forces:

Potential entrants:- Technology can reduce the labour cost of manufacturing and speed up the production process so that substantial economies of scale can be created. This can lift entry barriers from new entrants.

Suppliers: Investing in good IT system with a robust data base which can store and scan suppliers can assist to increase competition among suppliers and reduce the bargaining power.

Customers: Marketing data can be store in the data base. This information can be used to analyze and be used to improve the target market effort and hence reduce customer bargaining power.

Substitutes: The organization can reduce threats from substitutes by developing a wedsite and an in-store product database that allows customers to analyze and compare products on offer.

Industry rivalry: organization can have competitive advantage either by Cost leadership, Differentiation and Focus. Information System can help the organization on Cost reduction, differentiation through provision of websites and help to focus activities to trade on two different brands on internet.

END OF SUGGESTED SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA 3.1: ADVANCED FINANCIAL REPORTING

MONDAY 8 SEPTEMBER 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)

The following draft financial statements relate to Msanza, Kafue and Lunte all public limited companies.

Statements of financial position as at 31 March 2024 are as follows:

	Msanza Kmillion	**Kafue Kmillion**	**Lunte Kmillion**
Assets:			
Non – current assets			
Property plant and equipment	620.0	500.0	500.0
Biological assets	100.0	50.0	150.0
Investment properties	300.0	200.0	100.0
Investments in subsidiaries:			
Kafue Ltd	625.0	-	-
Lunte Ltd	155.0	635.0	-
Financial assets	160.0	10.5	70.5
	1,960.0	1,395.5	820.5
Current assets	447.5	340.5	75.0
Total assets	**2,407.5**	**1,736.0**	**895.5**
Equity and liabilities:			
Equity			
Share capital K1	675.0	605.0	400.0
Irredeemable preference shares of K2 each	200.00	-	-
Retained earnings	620.0	465.0	175.0
Other components of equity	62.5	40.0	47.5
Total equity	1,557.5	1,110	622.5
Liabilities			
Non-current liabilities	492.5	382.5	75.0
Current liabilities	357.5	243.5	198.0
Total liabilities	850.0	626.0	273.0
Total equity and liabilities	**2,407.5**	**1,736.0**	**895.5**

An increasing number of users have an interest in environmental matters, either as socially responsible investment (SRI) analysts, private investors, banks, employees or customers. In cases where there are material environmental impacts, they will normally expect to see more details in the annual reports.

Additional information:

(1) Msanza's current liabilities include K144 million due to its foreign suppliers. This amount has not yet been updated with related exchange loss of K100 million.

(2) On 1 April 2022, Msanza Ltd acquired 14% of the equity interest of Lunte Ltd for a cash consideration of K130 million and Kafue Ltd acquired 70% of the equity interest of Lunte Ltd for a cash consideration of K635 million. At 1 April 2022, the identifiable net assets of Lunte Ltd had a fair value of K495 million, retained earnings were K95 million and other components of equity were K26 million.

(3) The following information relates to the group pension plan of Msanza Ltd:

	1 April 2023 Kmillion	**31 March 2024 Kmillion**
Fair value of plan assets	16	16.5
Actuarial value of defined benefit obligation	17	19.5

Contributions for the year ended 31 March 2024 received by the fund were K1 million and the employee benefits paid in the year amounted to K1.5 million. The discount rate to be used in any calculation is 5%. The current service cost for the period based on actuarial calculations is K0.5 million. The above figures have not been taken into account for the year ended 31 March 2024 except for the contributions paid which have been entered in cash and the defined benefit obligation.

(4) On 1 April 2023, Msanza Ltd acquired 60% of the equity interests of Kafue Ltd, a public limited liability company. The cost of investment comprised cash of K625 million. On 1 April 2023, the fair value of the identifiable net assets acquired was K975 million and retained earnings of Kafue Ltd were K325 million and other component of equity were K27.5 million. The excess in fair value is due to non-depreciable land. It is the group's policy to measure the non-controlling interest at acquisition at its proportionate share of the fair value of the subsidiary's net assets at acquisition.

(5) At 1 April 2023, the identifiable net assets of Lunte Ltd had a fair value of K575 million, retained earnings were K120 million and other components of equity were K35 million. The excess in fair value is due to non-depreciable land. The fair value of the 14% holding of Msanza Ltd in Lunte Ltd, which was classified as fair value through profit or loss, was K140 million at 31 March 2023 and K155 million at 31 March 2024. However, the fair value of Kafue Ltd's interest in Lunte Ltd had not changed since acquisition.

(6) Goodwill of Kafue Ltd and Lunte Ltd were tested for impairment at 31 March 2024 and found that there was no impairment relating to Lunte Ltd. However, the goodwill of Kafue Ltd was fully impaired by the reporting date.

(7) On 1 April 2022, Msanza Ltd acquired office accommodation at a cost of K90 million with a 30-year estimated useful life. During the year, the property market in the area slumped and the fair value of accommodation fell to K75 million at 31 March 2023 and this was reflected in the financial statements. However, the market unexpectedly

recovered quickly due to the announcement of major government investment in the area's transport infrastructure.

On 31 March 2024, the valuer advised Msanza Ltd that the offices should now be valued at K105 million. Msanza Ltd has charged depreciation for the year but has not taken account of the upward valuation of the offices. Msanza Ltd uses the revaluation model and records any valuation change when advised to do so.

(8) Msanza Ltd has announced two major restructuring plans during the year. The first plan is to reduce its capacity by the closure of some of its smaller factories, which have already been identified. This will lead to the redundancy of 144 employees, who have all individually been selected and communicated to. The costs of this plan are K10 million in redundancy costs, K5 million in retraining costs and K4 million in lease termination costs. The second plan is to re-organize the finance and information technology department over a one (1) -year period but it does not commence until two years' time. The plan will result in 15% of finance staff losing their jobs during the restructuring. The costs of this plan are K10 million in redundancy costs, K6 million in retraining costs and K7 million in equipment lease termination costs. There are no entries made in the financial statements for the above plans.

Required:

(a) Discuss the pressures for extending the scope of external reports prepared by entities to include voluntary disclosures about their environmental policies, impacts and practices. (4 marks)

(b) Prepare the group consolidated statement of financial position of Msanza Ltd as at 31 March 2024. (36 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt ANY THREE (3) questions.

QUESTION TWO

PharmLife is a pharmaceutical company engaged in the manufacture of assorted medical drugs. The company is listed on the Lusaka Securities Exchange and prepares its financial statements annually to 30 September.

On 1 October 2023, PharmLife issued 4 million K100, 8% loan notes at par. Issue costs amounted to 2% of the gross proceeds and have been included in administration expenses. The loan notes are convertible into 50 K1 equity shares each or redeemable at a premium of 5% on 1 October 2027. The interest rate chargeable on similar loan notes without conversion rights before incorporating transaction costs was 13% as at 1 October 2023. However, the effective interest rate incorporating transaction costs would be 13.68%. The loan notes have been recorded at their par value in the draft financial statements.

The net proceeds from issue of loan notes were all used to construct a factory on the company's land that was acquired at a cost of K40 million during the year ended 30 September 2023. Construction works commenced on 1 November 2023 and were completed on 31 July 2024, although works were temporarily suspended for two (2) months from 1 January 2024 to 28 February 2024 due to a heavy downpour experienced during that period. The factory was commissioned on 1 September 2024 and immediately occupied. It was constructed at a total construction cost amounting to K392 million. It is estimated that the factory will have an economic useful life of 40 years, at the end of which the factory will have to be decommissioned at an estimated cost of K80 million. PharmLife has a cost of capital of 9% per annum.

It is company's policy to depreciate all factories on straight-line basis.

The directors of pharmLife are seeking advice on the accounting treatment of the above transactions in preparing the financial statements for the year ended 30 September 2024.

Required:

Advise the Directors of PharmLife on the transactions above stating the appropriate accounting treatment in accordance with the relevant IFRSs. Your answer should compute the amounts to be reported in the financial statements for the year ended 30 September 2024. (20 marks)

[Total: 20 Marks]

QUESTION THREE

(a) Kopala Plc, a once high performing company based in chingola, has been having financial challenges for the past two (2) years. The Directors of Kopala are disappointed by the draft profit for the year ended 30 April 2025. The company's Assistant Accountant has suggested an area where she believes the reported profit may be enhanced. The suggestion was that most of Kopala's competitors value their inventory using the average cost (AVCO) basis, whereas Kopala uses the first in first out (FIFO) basis. The value of Kopala's inventory at 30 April 2025 (on the FIFO basis) is K44 million, however on the AVCO basis it would be valued at K40 million. By adopting the same method (AVCO) as its competitors, the Assistant Accountant says the company would improve its profit for the year ended 30 April 2025 by K4 million. Kopala's inventory at 30 September 2024 was reported as K34 million, however on the AVCO basis it would have been reported as K30.8 million

Required:

Comment on the acceptability of the Assistant Accountant's suggestion and quantify how it would affect the financial statements if it was implemented under IFRS.
(7 marks)

(b) Zedbank Ltd is a Government-controlled bank, based in Lusaka. Zedbank Ltd was taken over by the Government of Zambia in 2025. Zedbank Ltd does not directly trade with other government-controlled banks but has underwritten the development of the nationally owned telecommunication services company (Zamtel). The Directors of Zedbank Ltd are concerned about the volume and cost of disclosing its related party interests because they extend theoretically to all other Government-controlled enterprises and banks. The Directors require general advice on the nature and importance of the disclosure of related party relationships and specific advice on the disclosure of the above relationships in the financial statements.

Required:

Advise the Directors of the company on how to deal with the above transaction in the

Financial Statements in accordance with IAS 24 Related Party Disclosures. (7 marks)

(c) Mufumbwe Ltd had put one of its properties on rent and was accounting for it using Fair Value Model of IAS 40 Investment Properties. At 1 May 2024, the properties' fair value was K42 million. On 1 January 2025, Mufumbwe Ltd changed the property's use to owner occupied. At that date, the properties had a fair value of K36 million and a remaining life of four (4) years. After change of use of the properties, Mufumbwe Ltd opted to account for the property using the cost model with no change to its useful economic life. The Accounts Assistant has recognized the properties at 31 March 2025 at its previous fair value of K36 million with no other amounts recognized.

(6 marks)

Required:

Advise the appropriate accounting treatment for the transactions in the books of Mufumbwe Ltd for the year ended 31 March 2025.

[Total: 20 Marks]

QUESTION FOUR

(a) Twatasha purchased a non-current asset on 1 January 2021 at a cost of K90,000. At that date, the asset had an estimated useful life of ten (10) years. Twatasha does not revalue this type of asset, but accounts for it on the basis of depreciated historical cost. At 31 December 2022, the asset was subject to an impairment review and had a recoverable amount of K48,000. At 31 December 2025, the circumstances which caused the original impairment to be recognised have reversed and are no longer applicable, with the result that the recoverable amount is now K100,000.

Required:

Explain, with supporting computations, the impact on the financial statements of the two (2) impairment reviews. (8 marks)

(b) On 1 April 2024, each of the seven (7) Directors of Twalumba Ltd received 16,000 share options as an award. Twalumba Ltd prepares its accounts to 31 March each year. The condition attached to the award is that the Directors must remain employed by Twalumba Ltd for three years. The fair value of each option at the grant date was K100 and the fair value of each option at 31 March 2026 was K144. At 31 March 2025, it was estimated that two (2) directors would leave before the end of three years. Due to an economic upturn, the estimate of Directors who were going to leave was revised to one (1) Director at 31 March 2026. The expense for the year as regards the share options had not been included in profit or loss for the current year and no Director had left by 31 March 2026.

Required:

Advise the Directors on how to account for the above transactions of Twalumba Ltd in its financial statements as at 31 March 2026. (5 marks)

(c) On 1 January 2025 Tionge Leasing Plc. (Tionge), acquired a large-scale custom-made equipment and leased it to Zikomo Ltd (Zikomo) for six (6) years. Zikomo makes annual payments of K10 million, commencing on 31 December 2025. The equipment has a useful life of seven (7) years. Zikomo is responsible for insuring and maintaining the equipment, and is required to pay additional K1.5 million at the end of each year provided a defined performance target is met. Zikomo has guaranteed that the value of the equipment at 31 December 2026 will not be less than K1 million, although Tionge anticipates that the open market value at that date will be approximately K2.5 million. The costs incurred by Tionge and Zikomo in arranging the lease amounted to K2.1 million and K1.6 million respectively. The rate of interest implicit in the lease is 9.49% per annum. Zikomo achieved the defined performance target on 31 December 2025 and made the required payment.

Required:

In line with ***IFRS 16 Leases,*** explain how Tionge would account for the above lease in its financial statements for the year ended 31 December 2025. (7 marks)

[Total: 20 Marks]

QUESTION FIVE

You are employed in a firm of Chartered Accountants as a Financial Analyst. Your supervisor has asked you to prepare a report on the financial performance and position of CorpTech Plc, a company listed on the Lusaka Securities Exchange. This report will be presented to a group of potential investors who have approached your firm for advice as to whether they should acquire the equity shares of CorpTech Plc.

The following are the draft financial statements of CorpTech Plc for the years ended 31 March 2025 and 2024:

Statement of profit or loss for the year ended:

	2025 K'million	2024 K'million
Revenue	22,180	17,400
Cost of sales	(12,300)	(10,400)
Gross profit	9,880	7,000
Operating expenses	(4,200)	(3,400)
Profit before interest and tax	5,680	3,600
Finance costs	(1,200)	(900)
Profit before tax	4,480	2,700
Income tax expense	(1,344)	(810)
Profit for the year	3,136	1,890
Other comprehensive income		
Gain on revaluation of PPE	2,000	1,100
Total comprehensive income	5,136	2,990
Dividends	2,236	1,430

Statement of financial position as at 31 March:

Assets:	2025 K'million	2024 K'million
Non-current Assets		
Property, plant & equipment	13,600	9,400
	13,600	9,400
Current Assets		
Inventories	3,200	3,500
Receivables	4,100	3,300
Cash and cash equivalents	1,700	1,900
	9,000	8,700
Total Assets	**22,600**	**18,100**

Equity and Liabilities:		
Equity		
Equity shares of K1 each	9,000	6,000
Share premium	3,600	2,800
Retained earnings	5,100	4,200
	17,700	13,000
Liabilities		
Non-current liabilities		
Loan notes	3,500	2,800
Current liabilities		
Payables	1,400	2,300
Total Equity and Liabilities	**22,600**	**18,100**

The following information is relevant:

(1) The company intensified the advertising campaign during the year ended 31 March 2025 resulting in opening of a new branch.

(2) The company issued equity shares on 1 April 2024. The market price per share was K4.40 as at 31 March 2025 and K3.90 as at 31 March 2024.

Required:

Write a report to the potential investors analysing the financial performance and position of CorpTech for the year ended 31 March 2025 using a selection of relevant financial ratios. You should make a recommendation on whether CorpTech is a suitable investment opportunity. (20 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

CA 3.1 ADVANCED FINANCIAL REPORTING

SUGGESTED SOLUTIONS

SOLUTION ONE

(a) **Pressure to extend the scope of external reports**

The annual report produced by an entity is expected to provide useful information for decision making by a wide range of stakeholders. The information within the financial statements has a number of limitations. It can only include information that can be expressed in monetary terms, and its focus is historical and backward-looking.

In recent years, the general awareness of the importance of environmental issues and other matters that affect the sustainability of business has grown. Campaigns by pressure group have raised the profile of environmental matters in the media and any publicity about adverse environmental impacts can have a massively detrimental effect on the reputation and share price of an entity. Many potential investors now look for entities that appear to have sound environmental and ethical policies, as well as healthy reported profits.

As a result, an increasing number of entities produce reports on their environmental policies, impacts and practice in order to explain to stakeholders the risks that are faced by the business as a result of environmental issues and the policies and actions that are being taken to minimise them. There is no specific accounting standard that requires such a report, so the content and level of detail can be chosen by the entity.

As the level of voluntary disclosures increases amongst entities within a particular sector, it can be difficult for an entity to avoid providing this additional information if it wants to maintain its reputation in comparison with its competitors.

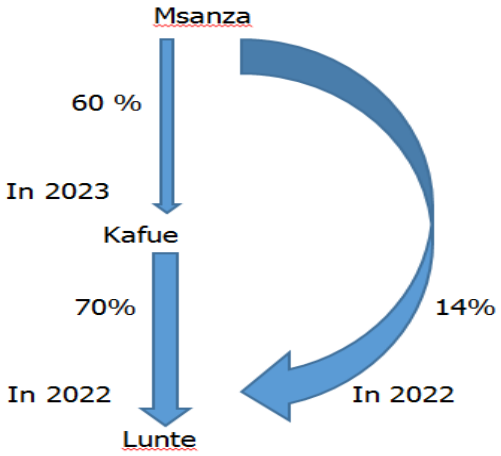
(b) **Msanza Group's Consolidated statement of financial position as at 31 March 2024**

Assets:	**K'million**
Non-current assets:	
Property, plant and equipment (620 + 500 + 500 + 17.5 + 20 + 32.60)	1,690.10
Biological assets (100 +50 +150)	300.00
Investment properties (300 +200 +100)	600
Goodwill (W3)	199
Financial assets (160 + 10.5 + 70.5)	241
	3,030.10
Current assets(447.5 + 340.5 + 75)	863
Total assets	**3,893.10**
Equity and liabilities	

Share capital	675
Irredeemable preference shares K2	200.00
Retained earnings (W5)	576.85
Other components of equity (W5)	95.55
Total equity attributable to shareholders of parent	1,547.40
Non-controlling interest (W4)	479.7
Total equity	2,027.10
Total non-current liabilities (492.5 + 382.5 + 75 + 3)	953
Current liabilities (357.5 + 243.5 + 198 + 14 +100)	913
Total liabilities	1,766
Total equity and liabilities	**3,893.10**

Workings:

(1) **Group structure**



The group effective interest in Lunte Ltd is:

Direct interest	14%
Indirect interest or effective interest (60% x 70%)	42%
Group effective interest	56%
The NCI interest in Lunte Ltd is therefore (100% - 56%)	44%
	100%
Consolidation of Kafue Ltd	
Group	60%
NCI (100% - 60%)	40%
	100%

The acquisition date for Lunte Ltd is 1 April 2023 as this is when Msanza Ltd gained control over Kafue Ltd and therefore indirect control over Lunte Ltd.

(2) Net assets

Kafue	**Acquisition date**	**Reporting date**	**Post-Acquisition**
	K'million	K'million	K'million
Share capital	605	605	-
Other components	27.5	40	12.5
Retained earnings	325	465	140
Fair value adjustment – Land (bal fig)	17.5	17.5	-
	975	1,127.5	152.5
Lunte			
Share capital	400	400	-
Other components	35	47.5	12.5
Retained earnings	120	175	55
Fair value adjustment – Land (bal fig)	20	20	-
	575	642.5	67.5

Therefore, the post-acquisition profits of Kafue Ltd is K152.5 million (K1,127.5 - K975) and that of Lunte Ltd is K67.5 million (K642.5 – K575).

(3) Goodwill

The cost of Lunte has three elements: the cost of the direct holding, the cost of the indirect holding and the indirect holding adjustments.

Kafue

	Kmillion
Fair value of consideration	625
NCI at acquisition (40% x K975)	390
Fair value of identifiable net assets acquired (W2)	(975)
Goodwill at acquisition	40
Impairment loss	(40)
Goodwill at reporting date	-

Msanza's investment in Lunte was held at K155 million at the reporting date. Therefore, the fair value increase of K15 (K155 – K140 million) that has arisen since the date that control was achieved must be removed from the consolidated financial statements. Retained earnings must also be reduced by K15 million.

Lunte

	Kmillion
Fair value of purchase consideration:	
Direct holding	140
Indirect holding (60% x 635)	381

NCI at acquisition (44% x K575)	253
Less fair value of identifiable net assets (W2)	(575)
Goodwill at reporting date	199

(4) **Non-controlling interest**

	Kmillion
NCI in Kafue at acquisition (40% x K975)	390
Share of post – acquisition net assets of Kafue (40% x (K1,127.5m - K975m)	61
Cost of investment in Kafue attributable to NCI (40% x K635m)	(254)
NCI in Lunte at acquisition date (K575m x 44%)	253
Share of post-acquisition net assets of Lunte (44% x (K642.5 - K575)	29.7
	479.7

Alternative:

	Kmillion
NCI in Kafue's net assets at reporting date (40% x K1,127.5)	451
NCI in Lunte's net assets at reporting date (44% x K642.5)	282.7
NCI's share of investment in Kafue (40% x K635)	(254)
	479.7

(5) Retained earnings

	Kmillion
Msanza	620
Exchange loss	(100)
Share of post-acquisition profits:	
Kafue: 60% x (K152.5m – K12.5m) (W2))	84
Lunte: 56% x (K67.5m – 12.5m)(W2))	30.8
Gain on investment in Lunte (W3)	(15)
Impairment of goodwill (W3)	(40)
Reversal of impairment loss (W6)	11.60
Restructuring provision (W7)	(14)
Pension plan expenses (W8)	(0.55)
	576.85

(6) **Other components of equity**

	Kmillion
Msanza	62.5
Kafue: 60% x (K40 million – K27.5 million) (W2)	7.5
Lunte: 56% x (K47.5 million – K35 million) (W2)	7
Revaluation gain (W6)	21.00

Pension plan re-measurement loss (W8)	(2.45)
	95.55

(7) Office accommodation

	Kmillion
Cost of office building	90
Depreciation (90/30years)	(3)
Carrying amount	87
Revaluation loss – Profit or Loss	(12)
Fair value at 31 March 2023	75
Depreciation (75/29years)	(2.6)
	72.4
Revaluation surplus - OCI	32.60
Fair value at 31 March 2024	105.0

On 31 March 2023, the property suffered impairment loss of K12 million which was charged to profit or loss as there was no revaluation reserve representing this asset. At 31 March 2024, the property appreciated and its fair value increased to K105 million. Therefore, the impairment loss should be reversed. The reversal of impairment is restricted to the carrying value of the property at 31 March 2024 if impairment loss did not occur. The excess of the gain should be accounted for as revaluation gain in accordance with IAS 16.

If no impairment had occurred, the asset would have been held at K84 million (K90 million – (2 x K3m)). Therefore, the gain recorded in profit or loss is K11.6 million (K84 million – K72.40 million). The remainder of the gain is recognized in other comprehensive income as a revaluation gain. i.e.; K105m – K84m = K21m.

The entries will be:

Dr property, plant and equipment	K32.60 million
Cr profit or loss	K11.60 million
Cr other comprehensive income	K21.00 million

(8) **Provision for restructuring**

IAS 37 requires that only those costs that result directly from and are necessarily entailed by a restructuring may be included in a restructuring provision. This includes cost such as employee redundancy costs or lease termination costs. Expenses that relate to ongoing activities, such as relocation and retraining, are excluded. A restructuring provision should only be recognized if the employees affected have been identifies and communicated to, and if the costs can be measured reliably.

With regard to the service reduction, a provision should be recognized for the redundancy and lease termination costs of K14 million (k10 million + K4 million). The sites and details of the redundancy costs have been identified.

In contrast, Msanza should not recognize a provision for the finance and IT department's re-organisation. The re-organisation is not due to start for two years. Stakeholders outside are unlikely to have a valid expectation that management is committed to the re-organisation as the time frame allows significant opportunities for management to change the details of the plan or even to decide not to proceed with it. In addition, the degree of identification of the staff to lose their jobs is not sufficiently detailed to support the recognizing of a redundancy provision.

Dr. Retained earnings	K14 million
Cr. Current liabilities	K14 million

(9) Pension plan

In order to calculate the re-measurement component, reconcile the opening and closing net pension deficit. The re-measurement component is accounted for in other comprehensive income.

The liability recognized in the financial statements will be K3 million (that is, K17.5 million-K14.5 million)

	Kmillion
Net obligation at 1 April 2023 (K17 million – K16 million)	1.0
Net interest component (K1 million x 5%)	0.05
Contributions	(1)
Service cost component	0.5
Expected liability	0.55
Re-measurement loss (remaining figure)	2.45
Net obligation at 31 March 2024 (19.5 -16.5)	3

The service cost component and net interest component will be charged to profit or loss (K0.55 million) and the re-measurement loss to Other Comprehensive Income (K2.45 million). There will be no adjustment for the contributions, which have already been taken into account.

SOLUTION TWO

PharmLife issued a convertible debt (compound instruments) whose proceeds were used to construct a factory. Therefore, this transaction will be accounted for in accordance with IAS 32, IFRS 9, IAS 23 and IAS 16.

IAS 32 states that where a financial instrument contains characteristics of both equity and liability, its separate components need to be classified and presented separately in financial statements. The convertible loan notes will therefore, be split into financial liability and equity instrument as at 1 October 2023.

A financial liability is calculated as the present value of the expected cash flows during the maturity period (fair value), at inception, discounted at an interest rate applicable to similar instruments without conversion rights. An equity instrument is the difference between proceeds of issue and financial liability.

As at 1 October 2023, the loan notes should have been split as follows:
Proceeds of issue: 4 million x K100 = K400 million
Issue costs: K400 million x 2% = K8 million
Interest payable = K400 million x 8% = K32 million
Redemption value = K400 million x 105% = K420 million

Year	Cash flows	K'million	DF@13%	Present value K'million
1 – 4	Interest	32	2.974	95.17
4	Redemption	420	0.613	257.46
	Value of the financial liability			352.63

Equity component = K400 million – K352.63 million = K47.37 million

The financial liability will therefore, be subsequently measured at amortised cost at an effective interest rate of 13.68%. This means that the issue costs of K8 million should have been deducted from the proceeds of issue, and not charged to profit or loss.

The issue costs should, therefore, be credited to administration expenses and debited to both financial liability and equity in proportion to the allocated proceeds as follows:

	Financial liability K'million	Equity K'million	Total K'million
Proceeds of issue	352.63	47.37	400
Issue costs	(7.05)	(0.95)	(8)
Net carrying amount at inception	345.58	46.42	392

The carrying amount of the financial liability will be as follows as at 30 September 2024:

Year	Balance at 1 October K'million	Finance costs @13.68% K'million	Interest payments K'million	Balance at 30 September K'million
2023 – 2024	345.58	47.28	(32)	360.86

The finance cost amounting to K47.28 million will be accounted for in accordance with IAS 23 – Borrowing Costs. IAS 23 requires that borrowing costs incurred on borrowings obtained to finance acquisitions or construction of qualifying assets must be capitalized as part of the cost of that asset.

A qualifying asset is that asset that takes a substantial period of time to get ready for its intended use or sale. The loan notes were issued to finance the construction of a factory and took seven (7) months to get ready for its intended use which is a substantial period of time. This means that finance costs qualify for capitalization.

However, IAS 23 states that only borrowing costs incurred during the period when activities necessary to prepare the asset are in progress should be capitalized. In this case, only finance cost incurred during the seven (7) months should be capitalized. i.e.; K47.28 million x 7/12 = K27.58 million.

The borrowing costs that fail to meet the capitalization criteria should be recognized in profit or loss as a finance cost. i.e.; K47.28 million x 5/12 = K19.7 million.

The factory building was commissioned on 1 September 2024, a month before the end of the year to 30 September 2024. The factory will be initially and subsequently measured in accordance with IAS 16 – Property, Plant and Equipment (PPE). IAS 16 requires an item of PPE to be measured on initial recognition at cost. Depreciation will be charged with effect from 31 July 2024, assuming that the asset was available from that date.

IAS 16, also requires borrowing costs qualifying for capitalization in accordance with IAS 23 as well as decommissioning (dismantling and restoration) costs to be included in the initial cost of PPE. Therefore, decommissioning costs of K80 million should be included in the initial cost of the factory at the present value.

The factory will be measured as follows both at 1 September 2024 and 30 September 2024:

	K'million
Construction costs	392
Borrowing costs	27.58
Decommissioning costs	
[K80 million x (1+0.09)^-40]	2.55
Cost at 1 September 2024	422.13
Depreciation (K422.13 million/40 years) x 3/12	(2.64)
Carrying amount at 30 September 2024	419.49

The present value of decommissioning costs should also be accounted for as a provision under non-current liabilities in accordance with IAS 37 – Provisions, Contingent Liabilities and Assets. This liability will be increased by the unwinding discount at a rate of 9% over a period of 40 years. Unwinding discount should be recognized as a finance cost. The finance costs for the year ended 30 September 2024 will be: K2.55 million x 9% x 1/12 = K0.02 million. This should be debited to profit or loss (finance costs) and credited to decommissioning provision.

Summary – statement of profit or loss extract for the year ended 30 September 2024

	K'million
Depreciation	2.64
Finance costs (19.70 + 0.02)	19.72

Summary – statement of financial position extract as at 30 September 2024

	K'million
Non-current Assets	
PPE (Factory)	419.49
Equity	
Other Components of equity (47.37- 0.95)	46.42
Non-current Liabilities	
Provision(decomm costs) (2.55+0.02)	2.57

SOLUTION THREE

(a) The appropriateness of the proposed change to the method of valuing inventory seems dubious. Whilst both methods (FIFO and AVCO) are acceptable methods of valuing inventory under IAS 2 *Inventories*, changing an accounting policy to be consistent with that of competitors is not a convincing reason. Generally, changes in accounting policies should be avoided unless a change is required by a new or revised accounting standard or the new policy provides more reliable and relevant information regarding the entity's position. In any event the assistant accountant's calculations are again incorrect and would not meet the intention of improving reported profit. The most obvious error is that changing from FIFO to AVCO will cause a reduction in the value of the closing inventory at 30 April 2025 effectively reducing, rather than increasing, both the valuation of inventory and reported profit.

A change in accounting policy must be accounted for as if the new policy had always been in place (retrospective application). In this case, for the year ended 30 April 2025, both the opening and closing inventories would need to be measured at AVCO which would reduce reported profit by K800, 000 ((K44 million – K40 million) – (K34 million –K30·8 million) – i.e. the movement in the values of the opening and closing inventories). The other effect of the change will be on the retained earnings brought forward at 1 April 2024. These will be restated (reduced) by the effect of the reduced inventory value at 30 September 2024 i.e. K3·2 million (K34 million – K20·8 million). This adjustment would be shown in the statement of changes in equity.

(b) Under IAS 24: Related Party Disclosures, disclosures are required in respect of an entity's transactions with related parties. Related parties include parents, subsidiaries, members of key management personnel of the entity or of a parent of the entity and postemployment benefit plans. Where there have been related party transactions during the period, management discloses the nature of the relationship, as well as information about the transactions and outstanding balances, including commitments, necessary for users to understand the potential impact of the relationship on the financial statements. Disclosure is made by category of related party and by major type of transaction. Management only discloses that related party transactions were made on terms equivalent to those which prevail in arm's length transactions if such terms can be substantiated.

Government-related entities are defined as entities which are controlled, jointly controlled or significantly influenced by the government. The financial crisis in the financial services sector in Zambia widened the range of entities subject to the related party disclosure requirements. This is not only peculiar in Zambia but many countries. The financial support provided by government to financial institutions in many countries meant that the government controls significantly influenced some of those entities.

A government-controlled bank would, in principle, be required to disclose details of its transactions, deposits and commitments with all other government controlled banks and with the Bank of Zambia or central bank. However, IAS 24 has an exemption from all of the disclosure requirements of IAS 24 for transactions between government-related entities and the government, and all other government-related entities.

Zedbank Limited is exempt from the disclosure requirements in relation to related party transactions and outstanding balances, including commitments, in relation to the following:

(a) a government which has control, joint control or significant influence over the reporting entity; and

(b) another entity which is a related party because the same government has control, joint control or significant influence over both the reporting entity and the other entity.

Those disclosures are replaced with a requirement to disclose:

- The name of the government and the nature of their relationship; and
- The nature and amount of any individually significant transactions; and
- The extent of any collectively significant transactions qualitatively or quantitatively.

(c) **Lindaboni Ltd**

The accounting treatment of the properties by the Accounts Assistant is incorrect. As there was change of use from investment property to owner occupied asset, recognizing the asset using fair value model of IAS 40 is incorrect as the accounting treatment should be per IAS 16 PPE.

The properties were an Investment property that was being accounted for using fair value model of IAS 40 Investment Properties. At the date of change of use, the method of accounting for the asset needs to change to cost model per IAS 16 as follows:

At 1 May 2024, the properties were estimated to have a fair value of K42 million. At 1 January 2025, the date of change of use, the fair value was K36 million, giving rise to revaluation loss of K6 million. The K6 million would have to be accounted for as per IAS 40 (the previous accounting basis for the asset) hence to be debited to profit or loss besides the three months depreciation of the properties amounting to K2.25 million (K36 million/4 years *3/12) for the year ending 31 March 2025. At the same reporting date, the properties would be recognized in the books at the depreciated cost of K33.75 million (K36 million – K2.25 million).

SOLUTION FOUR

(a) **Year ended 31 December 2022**	K	K
Asset cost at 1 January 2021	90,000	
Depreciation to 31 December 2022 (90,000 × 2/10)	(18,000)	
Carrying amount at 31 December 2022		72,000
Recoverable amount	(48,000)	
Impairment loss	**24,000**	

The asset is written down to K48, 000 and the impairment loss of K24, 000 is charged to profit or loss. The depreciation charge per annum in future periods will be K6, 000 (K48, 000 × 1/8).

Year ended 31 December 2025	K
Carrying amount at 31 December 2022 as above	48,000
Depreciation to 31 December 2025 (3/8)	(18,000)
Carrying amount at 31 December 2025	30,000
Recoverable amount	(100,000)
Impairment loss	Nil.

There has been no impairment loss. In fact, there has been a reversal of the first impairment loss. The asset can be reinstated to its **depreciated historical cost** i.e. to the carrying amount at 31 December 2025 if there **never had been an earlier** impairment loss.

K	
Asset historical cost at 1 January 2021	90,000
Historical cost depreciation to 31 December 2025 (5/10)	(45,000)
Historical carrying amount at 31 December 2025	45,000
Impaired carrying amount as above	(30,000)
Reversal of impairment loss	15,000

The reversal of the loss is recognised by increasing the asset by K15, 000 (K45, 000 – K30, 000) and recognising a gain of K15, 000 in profit or loss. It should be noted that the whole K24, 000 original impairment cannot be reversed. The impairment can only be reversed to a maximum amount of depreciated historical cost, based upon the original cost and estimated useful life of the asset. Take note, there is no reversal of impairment loss on goodwill.

(b) This transaction is accounted for under IFRS 2: Share Based Payments. Specifically, this is an equity-settled share based payment scheme and is accounted for below: Calculation of expenses and cumulative expenses.

year	**Expense for the year (K'million)**	**Cumulative expenses (K'million)**	**Calculations**
31 March 2025	2.67	2.67	5 directors x K100 x 16,000 x 1/3
31 March 2026	3.73	6.4	6 directors x K100 x 16,000 x 2/3

Profit or loss extract – for the year ended 31 March 2026

	Kmillion
Staff cost -share based scheme	3.73

Statement of financial position -Extract as at 31 March 2026

Equity	Kmillion
Special share - share based scheme	6.4

(c) Tionge would account for the lease agreement as a finance lease based on the following reasons:

- The lease term of six years occupies more than 75% of the equipment's useful economic life of seven years;
- Zikomo, the lessee, is responsible for insuring and maintaining the equipment; and
- The underlying asset is custom-made.

At the initial recognition date, Tionge would recognise a lease receivable for the finance lease. The receivable would be initially measured at either the sum of the equipment's fair price and lessor's initial direct costs or the present value of minimum lease payments and unguaranteed residual value, and subsequently adjusted for interest income, lease payments, any required re-measurements and impairment (if any).

The lease payments would exclude the variable payment as the variability depends on management's own performance. Tionge would only account for such payment as income if the predefined condition is met:

Year	**Future lease payments** K'000	**D.F.** (9.49%)	**Present value** K'000
1	10,000	0.913	9,130
2	10,000	0.834	8,340
3	10,000	0.762	7,620
4	10,000	0.696	6,960
5	10,000	0.636	6,360
6	10,000	0.580	5,800
6 (GRV)	1,000	0.580	580
Present value of minimum lease payments			44,790
6 (URV)	1,500	0.580	870
			45,660
Initial direct costs			**2,100**
Lease Receivable			**47,760**

Or Using the annuity formula

Year	Future lease payments K000	Annuity factor (9.49%)	Present value K000
1-6	10,000	4.4210	44,210
6 (GRV)	1,000	0.580	580
Present value of minimum lease payments			44,790
6 (URV)	1,500	0.580	870
			45,660
Initial direct costs			**2,100**
Lease Receivable			**47,760**

Lease table for subsequent measurement of the lease receivable:

Year	Balance at start K000	Interest (9.49%) K000	Lease receipts K000	Balance at end K000
2025	47,760	4,532	(10,000)	42,292
2026	42,292	4,014	(10,000)	36,306

Tionge
Statement of profit or loss (extract) for the year ended 31 December 2025

	K000
Finance income	4,532

Tionge
Statement of financial position (extract) as at 31 December 2025

	K000
Non-current assets:	
Lease receivable	36,306
Current assets	
Lease receivable (10,000 – 4,014)	5,986

SOLUTION TO FIVE

Report

To: Potential Investors

From: Consultant

Date: Date of Exam

Subject: **ANALYSIS OF FINANCIAL PERFORMANCE AND POSITION OF CorpTech**

The following report looks at the financial performance and financial position of CorpTech for the year ended 31 March 2023 in comparison with the financial performance and position for the year ended 31 March 2022. The report highlights the performance of the company in terms of profitability, working capital management, securities market performance and the gearing.

Profitability

There has been an increase in the revenue for the year ended 31 March 2023 to K22,180 million from K17,400 million for the year ended 31 March 2022 representing an increase in revenue of 27.47% manly due to intensified advertisement campaign. The increase in revenue could have been as a result of the new branch that was opened during the year. The gross profit margin and operating profit margin have increased from 40.23% and 20.69% for the year ended 31 March 2022 respectively to 44.54% and 25.61% for the year ended 31 March 2023 respectively. This indicates an increase in gross profit margin and operating profit margin of 10.71% and 23.78% respectively which could be due improved cost and other operating expenses management.

The return on capital employed (ROCE) has also increased from 22.78% for the year ended 31 March 2022 to 26.79% for the year ended 31 March 2023 representing an increase of 17.60%. This shows that the capital invested in the business are being utilized efficiently in the generation of profits. There has been a slight decline in the asset turnover from 1.10 for the year 2022 to 1.05 for the year 2023 representing a decrease of 4.55% which shows underutilization of non-current assets in generating revenue.

Working capital management

Generally, there has been an improvement in the management of working capital as revealed by the current ratio. The current ratio has increased from 3.78 for the year 2022 to 6.43 for the year 2023 representing an increase of 70.11% indicating a strong liquidity position reducing any fear of liquidity problems. This means that as at 31 March 2023, CorpTech could pay its current liabilities 6.43 times using its current assets. The receivables collection period has slightly reduced by two (2) days from 69 days for the year 2022 to 67 days for the year 2023 representing a decrease of 2.90%. This means that CorpTech is able to collect money for customers two (2) days earlier than it used to take in the year ended 31 March 2022.

There has been a significant decrease in payables payment period from 81 days for the year 2022 to 42 days for the year 2023. This means that CorpTech will now be required to settle its suppliers thirty-nine (39) days earlier, which puts more pressure on the company to look for money to pay the suppliers. The reduction could also mean that CorpTech paid its suppliers

earlier in order to take advantage of early settlement discounts which also improves supplier relationships.

Security market performance

CorpTech is listed on the Lusaka Securities Exchange and the performance of the company on the market is of great importance to the shareholders and potential investors. The earnings per share have increased from 31.50 Ngwee for the year 2022 to 34.84 Ngwee for the year 2023 representing an increase of 10.60%. This indicates growth in profitability and higher returns for the shareholders. The price earnings (PE) ratio has slightly increased from 12.38 for the year 2022 to 12.63 for the year 2023 which shows that there has been consistency in market expectations regarding the company's future earnings potential and grow in the market prices.

There has also been a slight increase in the dividends per share by 1.01 Ngwee representing an increase of 4.24%. This indicates an improvement in company's commitment to providing better returns to its shareholders.

Gearing

The gearing ratio measures the extent to the company finances its operations from both equity and debt. It measures the risks the investors are exposed to, in particular the shareholders bear the risk if the company has borrowed excessively. The gearing ratio has slightly decreased from 17.72% for the year 2022 to 16.51% for the year 2023 representing a decrease of 6.83%. This indicates lower financial risks and reduced reliance on debt finance.

Conclusion

CorpTech has shown significant improvement in its financial performance for the year ended 31 March 2023 as revealed by the financial ratios calculated (refer to the Appendix). The company has demonstrated strong profitability, efficient operations, improved liquidity, improved market performance and reduced financial risk. These positive trends suggest that CorpTech is a well-positioned company for future growth and stability.

Based on these favourable financial indicators, it is recommended that potential investors should consider acquiring equity shares of CorpTech as it is a promising investment opportunity.

You should not hesitate to contact me if there are any clarifications or specific insights you may need.

Signed
Consultant

Appendix – Financial Ratios for the years ended 31 March 2023 and 31 March 2022

		2023	2022
(1)	Gross profit margin		
	Gross profit x 100	9,880 x 100	7,000 x 100
	Revenue	22,180	17,400
		= 44.54%	= 40.23%
(2)	Operating profit margin		

	Profit before interest & tax x 100	5,680 x 100	3,600 x 100
	Revenue	22,180	17,400
		= 25.61%	= 20.69%
(3)	Return on capital employed		
	Profit before interest & tax x 100	5,680 x 100	3,600 x 100
	Equity + Long-term debt	17,700 + 3,500	13,000 + 2,800
		= 26.79%	= 22.78%
(4)	Asset turnover		
	Revenue	22,180	17,400
	Equity + Long-term debt	17,700 + 3,500	13,000 + 2,800
		= 1.05 times	= 1.10 times
(5)	Current ratio		
	Current assets	9,000	8,700
	Current liabilities	1,400	2,300
		= 6.43 :1	= 3.78: 1
(6)	Receivables collection period		
	Receivables x 365	4,100 x 365	3,300 x 365
	Credit sales	22,180	17,400
		= 67 days	= 69 days
(7)	Payables payment period		
	Payables x 365	1,400 x 365	2,300 x 365
	Cost of sales	12,300	10,400
		= 42 days	= 81 days
(8)	Earnings per share		
	Profit after tax & before dividends	3,136	1,890
	No. of equity shares in issue	9,000	6,000
		= 34.84 Ngwee	= 31.50 Ngwee
(9)	Price earnings ratio		
	Market price per share	K4.40	K3.90
	Earnings per share	K0.3484	K0.3150
		= 12.63	= 12.38
(10)	Dividends per share		
	Dividends	2,236	1,430
	No. of equity shares in issue	9,000	6,000
		= 24.84 Ngwee	= 23.83 Ngwee
(11)	Gearing ratio		
	Long-term debt x 100	3,500 x 100	2,800 x 100
	Equity + Long-term debt	17,700 + 3,500	13,000 + 2,800
		= 16.51%	= 17.72%

END OF SUGGESTED SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA3.2 ADVANCED AUDIT AND ASSURANCE

THURSDAY 11 SEPTEMBER 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)

Chipangali Oil Plc. is an oil marketing company involved in the importation and distribution of petroleum products. The company runs a lubrication manufacturing plant and imports base oils and additives to manufacture a wide range of lubricants for its consumer and retail customers.

Chipangali Oil Pc operates a number of retail service stations and controls a market share of 40% of the retail business in the country. The sector that contributes more than 60% of the profitability of the company is the consumer sector where the company is the major supplier of lubricants and petroleum products to the mines. Chipangali Oil Plc. has been in existence for ten (10) years and has been audited by Roy & Associates since its inception.

The year-end of Chipangali Oil Plc. is 31 December and it put to tender the offer of audit services in the last quarter of 2023 and your firm, Prince & Co, tendered after assessing the firm's capability to conduct the audit. After evaluating the bids received, Chipangali Oil Plc. offered your firm the contract to offer audit services for the next three (3) years. On receipt of official communication from Chipangali Oil Plc. the Partner in Charge of client acceptance conducted client screening before your firm responded to the offer.

Your firm of chartered accountants Prince & Co is currently auditor of Mafuta Ltd an oil company that imports and distributes petroleum products. This is your firm's first client in this industry and you started auditing its financial statements five (5) years ago. The Audit Manager on the audit of the financial statements of Mafuta Ltd is Mwami who has been in charge of this audit from the time that he joined your firm. Your firm intends to assign Mwami to the audit of the financial statements of Chipangali Oil Plc.

The following additional information came to light in the process of the *Know Your Client* (KYC) procedures conducted before acceptance of the offer for audit services to Chipangali Oil Plc.

(1) The year-end of Chipangali Oil Plc. is 31 December which is the same year end as that of Mafuta Ltd and the reporting timetable is very tight. Mwami is the only one (1) with knowledge of the audit of companies in the oil industry.

(2) Your firm has a branch in Zimbabwe and this branch is auditor of a large oil marketing and lubricant manufacturing company in that country. The majority of the Zimbabwe practice client's year end is March and there is generally idle time for most staff during the first quarter of each year.

(3) Chipangali Oil Plc. has an internal audit department that reports to the Audit Committee and which conducts financial and operational audits of the company.

(4) Your firm's branch based in Zimbabwe acquired shares in Chipangali Oil Plc. two (2) years ago.

(5) Your request to communicate with Roy & Associates in order to obtain professional clearance was denied by the management of Chipangali Oil Plc.

At the year end, management of Chipangali Oil Plc. conducted an assessment of the company's ability to continue as a going concern. Necessary representations were made by management supporting the view that the company is a going concern and the financial statements for the year ended 31 December 2024 were prepared on that basis.

After considering the ethical and other matters, your firm accepted to be auditor of Chipangali Oil Plc and conducted the audit of the financial statements for the year ended 31 December 2024.

During the finalization and review stage of the audit subsequent to the year end, the audit team established a number of issues that require attention before concluding and issuing an opinion:

(1) Inventory of base oils valued at cost of K2.5 million in the previous year was disposed of at less than cost because it had lost its potency and could not be used in the manufacturing of lubricants.
The company amended the financial statements and valued the inventory at net realisable value.

(2) There was a legal case that had not been resolved and concluded at the period end. A provision of K1.8 million was recognized in the financial statements. The case was determined after the audit report had been signed and the court determined that the company is liable to the tune of K1.1 million.

The financial statements of Chipangali Oil Plc. have not been amended on account of this matter.

(3) In February 2025 before the conclusion of the audit and signing of the audit report, a dividend was declared and paid by Chipangalo Oil Plc. The financial statements for the year ended 31 December 2024 were amended to take into account the dividend declared and paid.

(4) The company was sued by the environmental regulator for accidentally discharging hazardous substances into a stream that flows into a river from which a water utility company draws water to supply a nearby town. This came to light after complaints by nearby farmers that their animals died after drinking contaminated water.

Preliminary investigations revealed that the contamination was caused by Chipangali Oil Plc. and a number of farmers have threatened to take legal action against the company. The regulator temporarily suspended the operating license of Chipangalo Oil Plc. until it puts in place measures that will ensure that no future contamination takes place and required that the company compensates all farmers affected and will be penalized in accordance with the law.

Chipangali Oil Plc is computerized and has an integrated information system which includes an accounting package used for all accounting applications. The Engagement Partner has advised that the audit team on the audit of Chipangali Oil Plc should take advantage of big data and data analytics and also make use of Computer Assisted Audit Techniques during the

current audit. It is hoped that through the use of these tools, sampling risk will be greatly reduced.

Required:

(a) Discuss three (3) audit risks that your firm should consider in the audit of the financial statements of Chipangali Oil Plc. and suggest suitable responses for each audit risk. (6 marks)

(b) Describe three (3) ethical and professional issues in accepting and conducting the audit of the financial statements of Chipangali Oil Plc. and suggest suitable action that should be taken to mitigate the ethical matters. (6 marks)

(c) (i) Discuss two (2) reasons justifying the need to use an auditor's expert in the Audit of the financial statements of Chipangali Oil Plc. and explain two matters that should be considered in evaluating the work of the auditor's expert. (4 marks)

(ii) Discuss the impact of the matters discovered in the subsequent year and suggest suitable action on how to deal with each matter. (8 marks)

(d) (i) Explain big data and Computer Assisted Audit Techniques and how each of Them could reduce sampling risk.

(6 marks)

(ii) Develop an audit plan that should be put in place for the current year in planning the audit of the financial statements of Chipangali Oil Plc. taking into consideration matters in the scenario.

(10 marks)

Total: 40 Marks]

SECTION B

There are Four (4) questions in this section.

Attempt any THREE (3) questions.

QUESTION TWO

Reek & Associates is a firm of chartered accountants that offers both assurance and non-assurance services to clients. You are a Partner in Reek & Associates and you are responsible for quality control and client acceptance. Your firm handles and keeps client funds which it maintains in a separate bank account and it is managed by staff not involved in the provision of assurance services. In order to ensure that quality audits are conducted, your firm recently developed a code of conduct for its entire staff containing ethical values that must be followed.

You are faced with two (2) matters that require your attention as follows:

(1) You received a letter from the Zambia Institute of Chartered Accountants informing you that your firm is due for an inspection and that an inspection team will be visiting your firm in two (2) weeks to conduct an inspection in accordance with the Accountants Act 2008.

(2) You are considering bidding for the offer of audit services to Wankie Plc who invited tenders for offer of audit and tax services from auditing firms.

Wankie Plc. put to tender the offer of audit services because the previous auditors did not seek re-election. You are considering responding to the invitation to tender. You are of the view that your firm will have no problems auditing Wankie Plc. because it is currently the auditor of Masuku Ltd a company in direct competition with Wankie Plc. The previous auditors of Wankie Plc. provided assurance services and tax advisory services which included the computation of tax liability included in the financial statements. The company expects the auditors to be appointed to continue providing the two (2) services.

Your firm went ahead and submitted a bid for the offer of audit services to Wankie Plc. and you were called for a meeting with the Audit Committee to finalize the offer. The Audit Committee expressed concern over increasing audit fees which over the last few years have increased by over 100%. This is the issue that brought about a misunderstanding with the previous auditors who were not willing to renegotiate the audit fee. Management of Wankie Plc. suggested that the fee should be based on profitability of the company unlike the current situation where the fee is increasing annually while profitability is reducing.

You held a meeting with the Managing Partner of your firm to discuss the proposed fee for the audit of the financial statements of Wankie Plc. He suggested that the best approach will be for the firm to propose a fee that is 50% of the fee that the company was paying the previous auditors. This fee is significantly lower than the average fee for a client such as Wankie Plc. The Managing Partner is hopeful that the firm will gain from the offer of the non-audit services where a higher fee will be charged.

Your firm was nominated to be auditor of Wankie Plc. following an extra-ordinary general meeting which voted nominating your firm. Your firm was granted permission to communicate with the previous auditors and sought the necessary clearance as required but your firm accepted appointment before receiving a reply from the previous auditors.

The audit of the financial statements of Wankie Plc. for the year ended 31 December 2024 commenced. Soon after commencing the audit you received a response in which the previous auditors informed you that the management of Wankie Plc. lacked integrity and that the company is about to be investigated by the Drug Enforcement Commission for money laundering. You are considering the action that should be taken by your firm in view of this new information. Your firm has a policy on money laundering and one (1) of the Partners is the Money Laundering Reporting Officer.

Required:

(a) (i) Explain how monitoring by the regulator will help in ensuring quality audits are conducted by auditors. (2 marks)

(ii) Demonstrate, using the information in the scenario, four (4) matters that will be considered in the evaluation of the firm by the ZiCA. (4 marks)

(b) (i) Discuss four (4) ethical and professional matters that will have been considered by your firm before accepting appointment as auditors of Wankie Plc. (4 marks)

(ii) Discuss three (3) ethical matters that should be considered at the planning stage of the audit of the financial statements of Wankie Plc.
(6 marks)

(iii) Discuss how your firm will deal with the matter that came to the attention of the audit team after commencing the audit through the response from the previous auditors of Wankie Plc.
(4 marks)

[Total: 20 Marks]

QUESTION THREE

NewTech Co is a Zambian car manufacturing company that was established ten (10) years ago. Six (6) years ago, the company diversified into the manufacturing of electric vehicles. This was in response to increased global pressure to move away from fossil fuel driven vehicles. The company incurred significant money in research & development in the first three (3) years and as a result the company made losses in during this period.

Prior to establishing the new car manufacturing plant, the company disposed of its old plant used to manufacture fossil fuel driven vehicles and moved away from this market. The company still has significant quantities of spares for the fossil fuel driven vehicles most of which are slow moving due to reduced demand. The company gives two (2) years warranty on all its vehicles and during the current year there are fossil fuel driven vehicles that are still under warranty.

Three (3) years ago, the company experienced a significant increase in the demand for electric vehicles following high tariffs imposed on fossil fuel driven vehicles making them uncompetitive in the local market. In an effort to increase profitability, the Board of Directors of NewTech Co introduced performance based payments to the Executive Directors entitling them to a 20% bonus if the company meets the annual agreed profitability targets.

All the Executive Directors have three (3) year contracts which specify the remuneration that they are entitled to. NewTech Co is a subsidiary of a multi-national car manufacturing company based in the United States of America and imports most of its components and accessories from the parent company in the United States. The company exports 60% of its vehicles to the United States.

There has been a change of policy in the United States with the coming in of a new government. As a result of a decline in the American economy, partly caused by significant scaling down of fossil oil drilling, the new government immediately changed policy and repealed the law requiring the phasing out of fossil fuel driven vehicles by the year 2028. Incentives have been introduced to increase exploration and drilling of fossil fuels and removed the ban on the manufacturing of fossil fuel driven vehicles bringing back to life companies that had closed. The new regulations will negatively impact NewTech Co because it will lose its major market for electric vehicles.

Your firm of chartered accountants has been auditor of NewTech Co for the past three (3) years. You are the Audit Senior in charge of the audit of the financial statements for the year ended 31 March 2025. The financial statements show an amount of K120 million charged to profit or loss as research costs and the statement of financial position shows an amount of K250 million capitalized as development costs of a number of models of motor vehicles that are expected to go on commercial production in the next two (2) years.

It is the view of the Audit Senior that because of the uncertainty surrounding the sales of the electric vehicles in the United States of America, the development costs should not be capitalized but instead charged to profit or loss as an expense. There is a disagreement by members of the audit team with some arguing that the accounting by the company is correct while others are of the view that the development costs should be written off to profit or loss.

You brought the matter of accounting for the development costs to the attention of the management of NewTech Co which did not agree with the view to charge the development costs to profit or loss because this would turn the projected profit for the year into a loss. Your view is that the matter is serious and casts significant doubt about the going concern ability of the company and as such the financial statements should be prepared on the alternative basis. Management prepared the financial statements on the historical cost basis.

Required:

(a) Identify and explain six (6) audit risks that should be considered in planning and conducting the audit of the financial statements of NewTech Co. and suggest appropriate audit responses to each risk.
(12 marks)

(b) (i) Describe the action that should be taken by the audit team and the firm on account of the disagreement on the accounting for development costs.

(2 marks)

(ii) Discuss three (3) actions that should be taken if the disagreement for the accounting for research and development costs remains unresolved at the time of concluding the audit.
(6 marks)

[Total: 20 Marks]

QUESTION FOUR

(a) Your firm of chartered accountants is auditor of Victoria Plc. and you are planning the audit of the financial statements for the year ending 31 December 2024. Victoria Plc. is a wine manufacturing company which has been in existence for many years.

The Audit Senior has just attended a pre-audit meeting with management and the Audit Committee at which a representation was made requesting for a reduction in the audit fee on account of the fact that the company has an internal audit department and the audit team is free to use the work of internal audit which will result in reduction in the cost of the audit.
During the year, Victoria Plc. sold wine to the bank at K2.5 million on a sale and buy back arrangement. The company is contracted to buy back the wine after ten (10) years. The amount is included in the revenue figure for the year 2024. The wine will remain in the custody of Victoria Plc. during the ten (10) year period.

The Audit Senior assigned to the audit of the financial statements of Victoria Plc. conducted an evaluation of the internal audit department and concluded that the audit team could seek direct assistance of the department in the conduct of the audit.

The audit team made use of the internal auditors of Victoria Plc. in the following ways:

(1) The work of identifying and assessing risk at the planning stage of the audit of the financial statements of Victoria Plc. was done by the Senior Internal Auditor of Victoria Plc. under the supervision of the firm's Audit Senior.

(2) The audit team reduced the extent and nature of substantive audit procedures in the testing of purchases and sales relying on the work previously done by the Internal Audit department as part of their routine work.

(3) The Audit Team assigned internal audit staff to attend the year-end inventory count at locations where the audit team will not be in attendance.

(4) Members of the internal audit department of Victoria Plc. helped carrying out substantive audit procedures including procedures on accounting estimates in the financial statements of Victoria Plc. They also did work on assessing management's evaluation of the going concern ability of the company.

You are the Audit Manager in charge of the audit of the financial statements of Victoria Plc. The audit working papers have been given to you for your review. You are

particularly interested in establishing the extent of the use of internal audit in gathering evidence in the audit.

Required:

(i) Evaluate and discuss the accounting for the sale of wine to the bank under a contract to buy back after ten (10) years. (4 marks)

(ii) Discuss your review points regarding the use of internal audit of Victoria Plc. in the conduct of the audit of the financial statements. (6 marks)

(b) You are Audit Manager in charge of the audits of two (2) of your firm's clients whose audits are nearing completion.

The following information relates to each of the clients:

Mukuni Ltd:
The year-end of Mukuni Ltd is 31 December 2024. The audit team attended the physical inventory count at the period end and concluded that inventory was valued appropriately at the lower of cost and net realizable value.

On 15 February 2025 a fire gutted an area of the warehouse destroying inventory worth K5.3 million and this was before the audit report was signed on 5 March 2025. The financial statements were amended to take into account the value of inventory destroyed.

The Audit Senior recommended an unmodified opinion with a disclosure in the notes to the financial statements explaining that a fire destroyed inventory worth K5.3 million on 15 February 2025.

Mutanda Plc.
Management of Mutanda Plc. concluded that the company is a going concern and as such prepared the financial statements on a going concern basis.

An assessment made by the audit team is that there exists material uncertainty with regards the company continuing as a going concern. It was agreed with management that this should be disclosed in the financial statements.

The draft financial statements do not contain any information regarding the material uncertainty. Management declined the request by the Audit Senior to disclose the existence of material uncertainty with regards going concern in the financial statements. Management has no problem with the auditors disclosing the material uncertainty with going concern in the audit report.

The Audit Senior suggested an unmodified opinion with a disclosure in the Emphasis of Matter paragraph of the material uncertainty. He further stated that there are no Key Audit Matters to report on that require the inclusion of a Key Audit Matters paragraph in the audit report. No KAM paragraph has been included in the draft audit report prepared by the Audit Senior.

Required:

(i) Evaluate, with justification, the appropriateness of the suggested audit opinion for each of the two (2) audit clients. (4 marks)

(ii) Draft extracts of the report for each of the two (2) audit clients of your firm considering the outcome of the evaluation of the suggested opinions.

(6 marks)

[Total: 20 Marks]

QUESTION FIVE

Kalabo Ltd is a large Zambian importing company that supplies a diverse range of goods to major retail outlets across the country. For the financial year ended 31 March 2025, you have been assigned as Audit Senior at Mwata & Associates to lead the audit of Kalabo Ltd's consolidated financial statements. The group operates through three (3) subsidiaries: Kalabo Imports SA (audited by a component auditor in South Africa), Kalabo Logistics Zambia (audited by your team), and Kalabo Retail Ltd (audited by another local audit firm).

During the group audit, significant matters arose from the component audits. Kalabo Imports SA's auditor issued a qualified opinion due to the company's failure to recognise environmental restoration liabilities stemming from a documented environmental spill. Kalabo Retail Ltd's auditor also issued a qualified opinion after discovering inventory manipulation involving the deliberate inclusion of empty boxes in inventory counts, leading to a material misstatement.

In your role as group auditor, analytical procedures revealed a sharp increase in revenue without a corresponding increase in cost of sales, suggesting possible inventory overstatement. Although you attended the year-end inventory count and identified only minor discrepancies at the time, the audit team largely relied on management representations and component auditors' reports in drawing conclusions on the group accounts.

Just before the audit report was to be finalised, Kalabo Ltd's CEO disclosed a material fraud involving an inventory overstatement of K2.3 million. The fraud was uncovered after a major customer order for white petroleum jelly could not be fulfilled. Despite system records showing sufficient inventory, actual physical stock was significantly lower. Further investigation confirmed that empty boxes had been counted as inventory. This discovery raised concerns regarding the effectiveness of internal controls and the reliability of management's assertions.

Required:

(a) Discuss the competence and objectivity of the auditor's expert and the procedures you would apply to assess their work. (4 marks)

(b) Describe four (4) substantive audit procedures you expect to have been performed by the audit team with regards the risk **of** fraud in accordance with the provisions of ISA 240 *The auditor's responsibilities relating to fraud in an audit of financial statements.*

(8 marks)

(d) Explain four (4) key audit procedures required to evaluate Kalabo Ltd 's ability to continue as a going concern, considering the refinancing of its loan facility and the post-year-end decline in sales revenue.

(4 marks)

(d) Discuss the auditor's responsibilities regarding the prior year's misstatements and how to address them in the current years' audit. (4 marks)

[Total: 20 Marks]

END OF PAPER

CA 3.2 ADVANCED AUDIT AND ASSURANCE

SUGGESTED SOLUTIONS

SOLUTION ONE

(a) Audit risks in the audit of the financial statements of Chipangali Oil Plc.:

	Audit risk	Response to audit risk
1	Opening balances may be misstated on account of the fact that the financial statements of Chipangali Oil Plc. for the prior year were audited by different auditors.	Discuss the need for maintaining professional skepticism by the audit team members and evaluate evidence in the current year that gives evidence to opening balances. Consider performing specific procedures on material opening balances.
2	The fact that only Mwami appears to have experience in the audit of the financial statements in the oil industry suggests that detection risk could be high. There is a risk that staff assigned to the audit may not have the skills and competences to conduct a quality audit whose results can be relied upon as a basis for the audit opinion.	There should be close supervision of the work to be done and the need for quality reviews of the work done by partners that were not involved in the audit. Quality control reviewer could be from the Zimbabwe practice which has experience in auditing the oil industry.
3	There is a risk that closing inventory and work in progress may be misstated due to lack of knowledge in valuing work in progress which requires specialist knowledge.	There will be need to consider engaging an auditor expert to conduct the valuation of closing inventory and work in progress.
4	Provisions in the financial statements of Chipangali Oil Plc. may be misstated on account of the accounting estimates that require to be made on account of obsolete base oil and the outcome of the legal case against the company.	Review the accounting estimates made by management for likely management bias. Review previous year accounting estimates made by management and compare with the outcome to assess management's ability to make accounting estimates. The provision made at the period end should be adjusted so that it is in line with the final determination of the legal case.

(b) Ethical matters in the audit of the financial statements of Chipangali Oil Plc.:

	Ethical issues	Suitable safeguards
1	The audit team lacking necessary skills and competences to conduct an audit of a client in the oil industry.	Close supervision of the work done and possibility of having someone with experience seconded from the Zimbabwe practice.
2	Conflict of interest that may arise in view of two clients in competition being audited by the same auditors. Either of the clients may not be willing to have its financial statements audited by the same company auditing the financial statements of the competitor.	There is need to inform both competing companies about the fact that they will be audited by the same firm. If either of them is against this then the firm should decide which company it will audit. If both companies have no problem with being audited by the same firm suitable safeguards such as having separate audit teams audit each company.

3	The refusal by management of Chipangali Oil Plc. to allow the nominee auditors to communicate with the previous auditors is a professional issue. It is a requirement that nominee auditors should communicate with the previous auditors before accepting appointment as auditors.	If all efforts to get authorization to communicate with the previous auditors fail, the appointment should be declined.
4	The Zimbabwe office of the firm acquired shares in Chipangali Oil Plc. This could give rise to a self-interest threat for the Zambian practice.	Unless suitable safeguards can be put in place the Zimbabwe practice should be requested to dispose of the shares in Chipangali Oil Plc. If the threat is not considered significant, safeguards such as having a quality review of the audit working papers can be conducted.

(c) (i) Need for an auditor's expert in the audit of the financial statements of Chipangali Oil Plc.:

Auditor's experts may be required where the auditor does not possess the skills required to perform audit procedures for material amounts in the financial statements.

In the case of the audit of the financial statements of Chipangali Oil Plc., the company is in the manufacturing of lubricants and holds significant quantities of work in progress and finished products. The audit team may not possess the skills to value work in progress at the period end and this may necessitate the engagement of an auditor's expert.

Matters to consider in assessing the work of the expert:

1. The reasonableness of any assumptions that are made by the auditor's expert in arriving at the conclusion reached in determining the values of work in progress.
2. The relevance of the expert's findings and the conclusions reached and assessing whether they are consistent with other evidence gathered by the auditors.

(ii) Impact of subsequent events to the audit of the financial statements of Chipangali Oil Plc.:

1. The inventory of base oil was valued at cost at the period end. Inventory is supposed to be valued at the lower of cost and net realizable value. The fact that the base oils could no longer be used suggests that it has a nil net realizable value.

Suitable action:

This is an adjusting event requiring that the figures at the period end be adjusted.

The adjustment made by management in writing off the value of this inventory is correct. The audit team will require performing audit procedures on the adjustment to the financial statements.

2. Accounting estimates are risky areas in gathering audit evidence by the auditors. There is judgment used in determining accounting estimates.
   The determination of a court case after the period end gives evidence of how much should have been provided had the outcome been known at that time.

   Suitable action:
   This is an adjusting event and the provision should be reduced to K1.1 million. .

   Management should be requested to amend the figure at the year and not doing so could result in a misstatement of the financial statements by the excess provision made. The auditors will require performing audit procedures on the amendment made to the financial statements.

3. A dividend declared in a subsequent financial year does not affect the previous year financial statements. The dividend is supposed to be accounted for in the financial year ending 31 December 2025.

   Suitable action
   Management should be requested to reverse the entry recognizing the dividends in the financial statements for the year ended 31 December 2024.

4. The matter relating to the discharge of hazardous substances by Chipangali Oil Plc. have an impact on the audit of the financial statements of the company for the year ended 31 December 2024.

   Suitable action:
   This is a matter that has come to the attention of the auditors subsequent to the period end but before the signing of the audit report. The damages to be paid to the affected farmers and the penalties to be paid may be significant and may cast doubt about the ability of the company as a going concern. The fact that the operating license has temporarily been withdrawn awaiting a final decision by the regulators casts significant doubt about the ability of the company as a going concern.

   Even if the incident has taken place after the period end there clearly is a material uncertainty with regards going concern. The matter should be discussed with management and those charged with governance and will esquire adequate disclosure in the 2024 financial statements and the audit report will also report on the material uncertainty in the paragraph titled Material Uncertainty Related to Going Concern.

(d)(i) Big data and CAATs and sampling risk:

Big data and data analytics involves the use of vast amount of data and information to develop relationships which could have audit significance.
Use of big data and data analytics have a positive impact on audits in that auditors can test vast volumes of items at high speed. This will result in significant reduction in detection risk because 100% testing could be conducted.

Computer Assisted Audit Techniques (CAATs) enable the auditors to take advantage of IT in conducting procedures that would otherwise would have been done manually through the use of audit software.

The use of CAATs can result in significantly higher number of items being tested and again eliminate the need to take samples ultimately removing sampling risk.

(ii) Audit plan for the audit of the financial statements of Chipangali Oil Plc.:

	Matter to include in audit plan	Explanation
1	Interim audit due to tight reporting timetable.	In view of the fact that Chipangali Oil Plc. has a tight reporting timetable it will be necessary to consider conducting in interim audit mid-way through the financial year. Transactions for the first half of the year can be done during the interim audit visit. Limited procedures on statement of financial position balances could be done at the interim audit for example procedures on opening balances and additions and disposals of tangible non-current assets.
2	Availability & use of an auditor's expert	Consideration should be made on availability of auditor's experts and plans to engage experts to carry out the valuation of closing inventory and work in progress which requires specialist's skills.
3	Seconding of staff from Zimbabwe practice	The firm should consider getting on secondment staff from the Zimbabwe practice which has the skills necessary to conduct audits for the oil industry. This should be possible because the majority of the staff of the Zimbabwe practice is not busy during the time that the financial statements of Chipangali Oil Plc. will be audited.
4	Use of big data & CAATs	Big data and the use of Computer Assisted Audit Techniques could result in more testing and also less testing using traditional audit methods. The use of these techniques will reduce detection risk and also sampling risk resulting in better quality audit being conducted.
5	Possible use of internal audit	The possible use of internal audit for the audit of the financial statements of Chipangali Oil Plc. should be included in the audit plan. The audit team may seek to use the work of internal audit or seek direct

		assistance of internal audit where not prohibited. This will save valuable audit time and could have implications on the audit fee.
6	Combined approach to the audit	The possible use of a combined approach to the audit should be included in the audit plan. This will involve performing tests of the controls that would have been identified during the risk assessment stage of the audit. If the results of the tests of controls prove satisfactory, the auditor may place reliance on the controls and reduce the extent of further audit procedures to be conducted.

SOLUTION TWO

(a)(i) How monitoring by regulator can ensure quality audits:

Regulation of assurance providers means that the regulator monitors the work of assurance providers to ensure they conduct audits whose results can be relied upon as a basis for the audit opinion.

In view of the fact that assurance providers are aware that the regulator can review their work, they will conduct audits in accordance with auditing standards. The fact that practicing licenses require annual renewal, assurance providers risk their licenses not being renewed if they do not conduct quality audits.

(ii) Matters considered by regulators:

1. The regulator will wish to confirm that the assurance provider possesses a valid practicing license.
2. The regulators will want to see the practicing licenses displayed conspicuously by the firm.
3. The availability of a code of ethics by the firm which as a minimum meets the requirements of the ethical principles for accountants.
4. The possession by the firm of valid insurance cover for professional indemnity and fidelity guarantee in view of the fact that the firm does offer non-audit services.
5. The regulator may review samples of audit working papers to confirm that audits are conducted in accordance with auditing standards.
6. The regulators may want to review the qualification of the senior members of staff of the audit firm.
7. The existence of a code of ethics to be followed by the firm staff which as a minimum meets the ethical principles issued by IFAC.

(b)(i) Ethical matters to consider before accepting appointment:

1. The firm should ensure that there are no ethical matters that would cause it not to accept appointment.
2. The firm should ensure it has the necessary resources in terms of human and financial resources to be able to conduct the audit.
3. The firm should confirm that its appointment as auditor is valid and this could be done by inspecting the resolution of the extra ordinary meeting at which the appointment was made.
4. The firm requires communicating with the previous auditors and obtaining professional clearance. This can only be done of permission to communicate is granted by Wankie Plc. If permission is not granted the firm should decline the appointment.

(ii) Ethical matters in planning the audit of Wankie Plc.:

1. The offer of tax services that require the computation of the tax liability is an ethical issue that gives rise to a self-review threat.
2. The fact that the firm is auditor of Masuku Ltd a company in direct competition with Wankie Plc. this gives rise to a conflict of interest between clients. Either of these companies may not be willing to be audited by the same firm.

3. The suggestion by the management of Wankie Plc. that the audit fee should be based on profitability is an ethical issue that gives rise to self-interest. Ordinarily, the audit fee should be based on the hours worked on a client by the different levels of staff in the audit team. A fee based on profitability will impact the objectivity of the audit team.
4. The suggestion to charge a fee that is 50% of the average fee for this size of audit is an ethical issue of lowballing. There is a danger that the firm may not perform a quality audit in order to cut costs. It is not prohibited to charge low fees as long as safeguards are applied

(iii) Action on matter from previous auditors:

The matter brought out by the previous auditors of Wankie Plc. borders on criminality on the part of the company. The firm has a responsibility to report any money laundering activities to the competent authority which is the Drug Enforcement Commission (DEC).

In considering reporting the matter, the firm should take into consideration the ethical principle of confidentiality in view of the fact that this information came to the firm's attention in view of the audit engagement. This is one instance where there is an exception to the ethical principle of confidentiality and the firm may not be in breach if it reports the matter.

Since the firm has a policy on money laundering and has a Money Laundering Reporting Officer (MLRO), the audit team should report this matter to the MLRO. The MLRO will require getting full details of the matter and if the firm is not sure of whether a crime has been committed there may be need to seek legal advice on the matter. The firm should ensure that it does not tip Wankie Plc. that it may be investigated as this may jeopardize any investigations that may be taken by the DEC.

If an ethical dilemma arises after acceptance and during the tenure of the agreement, the firm should apply suitable safeguards. If there is no appropriate safeguard that can be applied, the firm should consider resigning from the engagement.

Depending on severity of the matter, the firm will need to reassess the integrity of management. If it is concluded that management lacks integrity, the firm may consider discontinuing with the engagement.

SOLUTION THREE

(a) Audit risks at planning and during the audit of the financial statements of NewTech Co:

	Audit risk	Response to risks identified
1	The company spends significant amounts of money on research & development. These costs are supposed to be charged to profit or loss unless development costs meet the requirements for capitalization. There is a risk that NewTech Co may capitalize development costs not meeting the criteria for capitalization which will result in the misstatement of intangible assets and profit for the company.	The audit team will require evaluating the capitalization of development costs by reviewing the basis for the capitalization. The assumptions made by management should be reviewed.
2	The valuation of spares for models no longer being manufactured may not be in line with the provisions of IAS 2 Inventories which requires that inventory should be valued at the lower of cost and net realizable value. The inventory may be valued at cost which could be higher than the NRV resulting in an overstatement of inventory and profitability of the company.	Review the inventory count instructions on how they deal with identifying slow and absolute inventory. Attend year-end inventory country and observe the identification of the slow moving inventory and check the valuation to confirm correctly valued.
3	The giving of warranty on vehicles is an accounting estimate which may be misstated resulting in provisions being understated.	Review the computation of the warranty provision made and the assumptions made for reasonableness.
4	The introduction of a performance based payment for the executive directors could lead to creative accounting in order to meet the agreed profitability levels. There is a risk that accounting estimates are deliberately understated in order to reduce costs and achieve the profit levels agreed.	To be skeptical on the accounting estimates made by management and look out for bias in determining accounting estimates. Pay special attention to any accounting estimates in the financial statements.
5	Related party transactions with the American parent company may not be identified and disclosed as required resulting in the misstatement of the financial statements.	The audit team members should observe professional skepticism to identify any dealings with related parties. Further, a review of the draft financial statements should be made to confirm disclosure of the dealings with related parties and related party relationships.
6	The remuneration of the directors may not be disclosed as required resulting in the misstatement of the financial statements.	There is need to read the contracts of the directors and review the draft financial statements to confirm disclosures of director's remuneration have been made as required.
7	There is a risk that NewTech Co may face going concern issues in view of the change in the law in the country where 80% of its vehicles are currently exported. Unless the company finds a new market, it will cease to	Discuss with management and find out how it hopes to deal with the loss of a major customer. Consider requesting management to use the alternative basis of preparing financial statements. If it is agreed that the

	operate. There is clearly material uncertainty with regards its ability to continue and be able to pay its debts in the next one year.	historical cost basis is appropriate, confirm that adequate disclosures are made in the financial statements.
8	Change in legislation in the US which is the major market for the company whereby production of fossil moved vehicles will continue to be produced could adversely impact the major market of NewTech Co. This could have implications on the going concern ability of the company and the basis of preparing the financial statements.	Discuss with management its assessment of the company as a going concern and evaluate the assumptions made in management's assessment. Be skeptical and look out for any going concern challenges the company may be facing and also obtain written representations from management concerning going concern.
9	The bulk of the transactions of NewTech Co is with the parent company. The dealing with the parent company are in US dollars. There is an audit risk that the accounting for foreign exchange transactions may not be in line with relevant accounting standards.	Perform audit procedures on the accounting for foreign exchange transactions to confirm in line with applicable accounting standards.

(b)(i) Action in view of disagreement within the audit team members:

The matter of dispute within the audit team should be resolved before continuing with the audit. The issue should be dealt with in accordance with the policy of the firm on consultation as required by ISA 220 *Quality control for an audit of financial statements.* The team leader should discuss the matter with the rest of the audit team and should be guided by the provisions of the relevant accounting standard

If the disagreement persists, the audit team should consult the Senior Members of the assignment such as the Audit Manager and if not resolved to the attention of the Engagement Partner.

(ii) Action to take if matter remains unresolved with management:

1. Consider the impact of capitalization on the financial statements to determine its impact on materiality.
2. The audit team should seek audience with the Audit Committee and seek its help in resolving the matter with management.
3. If the matter remains unresolved there will need to consider the impact this will have on the audit opinion. It appears that this may call for the modification of the opinion in which case management and those charged with grievance should be informed.
4. The integrity of management is put into question and if the matter is considered serious it may justify terminating the engagement with NewTech Co.

SOLUTION FOUR

(a)(i) Accounting for the sale of wine on sale & buy back arrangement:

It is not in the ordinary cause of business of banks to deal in the purchasing and selling of wine.

The fact that the wine will be in the custody of Victoria Plc. during the contractual period suggests that the transaction is more of a financing tool rather than a sale. The company has simply obtained financing which it currently needs from the bank with a contractual requirement to buy back the wine after ten (10) years.

The substance of the transaction is that this is a loan rather than a sale. The amount should be treated as a loan in the financial statements of Victoria Plc. and not as a sale as is the case. Management should be requested to amend the transaction.

(ii) Review of the use of internal audit in the audit of the financial statements of Victoria Plc.:

The internal audit department of Victoria Plc. reports to the Audit Committee which is in line with best practice. The external audits may make of internal audit in one of two ways namely seeking direct assistance and relying on the work done by internal audit department.

1. The use of internal audit department in the risk assessment stage of the audit is not allowed. This is because of the high risk involved if this is not done correctly. Risk assessment requires knowledge and skills that the internal auditors do not possess.
2. Use can be made by the external auditors of the work done by the internal auditors in testing the effectiveness of the internal controls of Victoria Plc. Based on the results of the tests of controls, the external auditors will decide on the nature and extent of further procedures to be done.
3. The external auditors can rely on the work done by the internal auditors in attending inventory count in areas that the external auditors did not attend.
4. Despite internal auditors being supervised by the Audit Senior in performing substantive audit procedures, accounting estimates are a risky area for the auditors and require significant amount of judgment. It will not be appropriate to use the internal auditors to audit provisions in the audit of the financial statements of Victoria Plc. on account of the level of risk that is there.

(b)(i) Appropriateness of suggested audit opinions:

Mukuni Ltd:

The inventory lost through a fire after the period end does not have an impact on the inventory value at the period end. This is a non-adjusting event. Management should not have amended the closing inventory value but the disclosure in the notes to the financial statements is appropriate.

The recommendation of an unmodified opinion by the audit senior is correct. There is, however, a need to correct the inventory value to restate it to what it was at the period end. The effect of the fire could be explained in the emphasis of matter paragraph of the audit report.

Mutanda Plc.:
The fact that management of Mutanda Plc. has rejected the request to disclose the material uncertainty, with regards going concern, has an impact on the financial statements.

Financial statements can be misstated on account of qualitative matters such as disclosures not been made. The opinion suggested by the Audit Senior is not appropriate on account of lack of disclosure of the existence of material uncertainty. The appropriate opinion in this case is a qualified opinion.

The fact that there were no key audit matters to report on, does not suggest that a Key Audit Matter paragraph should not be included. For listed companies the KAM paragraph is mandatory and the auditors can state that they do not have any KAMs to report on.

(ii) Extracts of reports using opinions in (i) above:

Mukuni Ltd:
Opinion
The financial statements of Mukuni Ltd show a true and fair view.

Basis for opinion
In the conduct of the audit of the financial statements of Mukuni Ltd. sufficient appropriate evidence which formed the basis of the opinion was obtained. There is no matter observed that would have led to the modification of the opinion.

Emphasis of matter
Reference is made to not xx of the financial statements. A fire destroyed inventory worth K5.3 million after the year end. This does not affect the value of inventory at the period end and the opinion is not modified as a result of this matter.

Mutanda Plc.:
Qualified opinion
Except for the matter explained in the basis for opinion paragraph below, the financial statements show a true and fair view.

Basis for qualified opinion
There exists a material uncertainty regarding the ability of Mutanda Plc. as a going concern. This has not been disclosed in the financial statements as required resulting in misstatement of the financial statement.

Key Audit Matters

There are no Key Audit Matters to report on.

Material uncertainty in relation to going concern

We draw your attention to note xx on the financial statements which indicates that the company has liquidity problems and a negative current ration a matter that gives material uncertainty with regards the company as a going concern. It casts significant doubt on the company's ability to continue as a going concern. Our opinion is not modified in respect of this matter.

SOLUTION FIVE

(a) Competence and Objectivity of the Auditor's Expert

When relying on the work of an auditor's expert (e.g., an environmental or inventory valuation specialist), the auditor must evaluate both their competence and objectivity in accordance with ISA 620 – Using the Work of an Auditor's Expert:

- **Competence**
  - Assess the expert's professional qualifications, certifications, and relevant experience (e.g., expertise in environmental liabilities or inventory valuation).
  - Review the expert's track record with similar work, including reports previously provided in audit settings.

- **Objectivity**
  - Evaluate whether the expert is independent of the client. Any financial or business relationship with Kalabo Ltd would impair objectivity.
  - Confirm whether the expert was engaged directly by the auditor or recommended by the client. Experts appointed or paid by management may have a risk of bias.

Procedures to assess the work of the auditor expert:

- Discuss the scope and objectives of the expert's work to ensure alignment with the audit objectives.
- Review the expert's report for clarity, methodology used, and assumptions made.
- Evaluate the consistency of the expert's conclusions with other audit evidence.
- Re-perform or corroborate key assumptions where feasible, using audit knowledge or industry data.

(b) Substantive audit procedures with regards the risk of fraud:

In accordance with ISA 240 *The auditor's responsibilities relating to fraud in an audit of financial statements*, the following substantive procedures would be appropriate in response to the risk of fraud in Kalabo Ltd:

- The auditors shall enquire of the following from management:
  - Management's assessment of the risk of fraud in the company
  - The process that management uses to identify & respond to fraud and how the process failed to detect fraud that has occurred on inventory.
  - Management's communication to staff concerning the risk of fraud.
- The auditors will require to inquire from management of any fraud that has occurred or any fraud management suspects.
- The auditor will require to find out how those charged with governance exercise oversight on management regarding the risk of fraud.
- The auditor will enquire of those charged with governance of any fraud that they may be aware of or suspect.
- The auditor should evaluate whether the evidence obtained from substantive audit procedures indicate the existence of fraud risk factors.

(c) Going Concern audit procedures:

ISA 570(Revised) *Going concern* gives guidance in this area and the auditors will require to do the following:

1. The auditors will require to evaluate the management's assessment of going concern and ensure that management has made an assessment for a minimum period of 12 months.
2. During the stage of planning the audit and risk assessment, the audit team members should be skeptical and look out for indicators of going concern in Kalabo Ltd.
3. The audit team should inquire of management if it is aware of events or conditions that cast significant doubt on the company's ability to continue as going concern.
4. The audit team should request for written representations from management and those charged with governance about their assessment that Kalabo Ltd is a going concern.

(d) Auditor's responsibility with regards prior year misstatements:

1. The auditors will require to discuss with management concerning any misstatements related to prior year financial statements. If the outcome of the discussion confirms that there were misstatements, it should be established the extent to which such misstatements impact the current year financial statements.
2. The audit team should request management to correct any figures that are misstated and the corrections should be through the reserved brought forward from the previous year.
3. With regards the current year audited financial statements, the comparative figures should reflect the corrected amounts for comparison purposes.

END OF SUGGESTED SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA 3.4: ADVANCED TAXATION

THURSDAY 11 SEPTEMBER 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.

10. A Taxation table is provided from page 2 to page 6 of the question paper.

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

Taxation Table

Income Tax

Standard personal income tax rates

Income band	Taxable amount	Rate
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 – COMPULSORY

You are employed in a firm of Chartered Accountants as a Senior Tax Consultant. Your supervisor has provided the following information relating to your client Orange Metal Fabricators Inc.

Background

Orange Metal Fabricators Inc is a company resident in a country known as the Republic of RiverLand and it is listed on the securities market of that country. The company is engaged in the manufacture of electric cables and assorted jewelry. Its main raw material is copper and emeralds that are imported from Zambia. On 30 September 2024, the Board of Directors of Orange Metal Fabricators Inc approved a decision to invest in Zambia through incorporation of a new company in order to reduce the cost of production and gain competitive advantage over its global competitors. The currency of RiverLand is the RiverLand Dollar (RL$).

On 20 November 2024 Orange Metal Fabricators Inc successfully incorporated a new mining company in Zambia under the name Orange Minerals Zambia. Orange Minerals Zambia commenced its mining activities on 1 February 2025 and prepared its first financial statements for a period to 31 December 2025. Thereafter, financial statements will be prepared annually to 31 December.

Stock market listing

Orange Minerals Zambia listed its shares on the Lusaka Securities Exchange on 1 May 2025 and Orange Metal Fabricators Inc retained ownership of 75% of the issued equity shares of Orange Minerals. The Government of the Republic of Zambia through the Industrial Development Corporation (IDC) acquired 18% of the issued equity shares of Orange Minerals Zambia and the remaining 7% of the issued equity shares was acquired by Zambian resident individuals. The company incurred a total cost of K860,000 in obtaining the listing and issuing shares on the Lusaka Securities Exchange.

Finance Director of Orange Minerals Zambia Plc

The Finance Director of Orange Minerals Zambia Plc is Shepherd Hamutete who was employed on 1 April 2025 at an all-inclusive annual salary of K1,584,000.

In addition, he received income from his investments in companies that are resident in RiverLand in form of dividends amounting to RL$3,808 and bank deposit interest amounting to RL$1,840.

The dividends are net of withholding tax deducted in RiverLand at a rate of 32% while interest is net of withholding tax deducted in RiverLand at the rate of 20%.

Income tax deducted under pay as you earn amounted to K218,400 during the year ended 31 December 2025.

Financial performance of Orange Minerals Zambia Plc

The following is the statement of profit or loss extract for the period ended 31 December 2025

	Note	K
Gross profit		578,040,000
Operating expenses	(1)	(239,220,000)
Profit before interest and tax		338,820,000
Finance costs	(2)	(110,000,000)
Other income	(3)	2,125,000
Profit before tax		230,945,000

The following additional information is relevant:

Note 1: Operating expenses

Operating expenses include expenditure on the construction of a community hospital within the mine township at a cost of K20,000,000, expenditure on the construction of township roads within the mine township at a cost of K30,000,000, exploration expenses of K25,000,000, employees' salaries amounting to K111,800,000, depreciation of non-current assets K11,100,000, LuSE listing and share issue costs K860,000, environmental fines for polluting a local river of K560,000 and amortization of intangible assets of K5,800,000. The balance is made up of revenue expenses that are allowable for tax purposes.

Note 2: Finance cost

Included within finance cost is interest at the rate of 31% paid by Orange Minerals Zambia Plc on a loan of RL$16,000,000 advanced by Orange Metal Fabricators Inc, to its Zambian subsidiary on 1 April 2025. The loan is repayable on 31 March 2029. The open market interest rate on loans of this type on 1 April 2025, was 25% per annum. The remaining balance of the finance cost represents interest on loans from lending institutions not related to Orange Minerals Zambia Plc.

Note 3: Other income

Orange Minerals Zambia Plc invested in the Government of the Republic of Zambia (GRZ) bonds from which it received interest amounting to K2,125,000. This amount represents the actual amount of interest credited to the company's bank account.

Note 4: Provisional income tax

Orange Minerals Zambia Plc paid provisional income tax amounting to K21,410,300 during the year ended 31 December 2025.

Note 5: Mineral royalty

The mineral royalty tax paid by the company during the year ended 31 December 2025, has been properly accounted for and included within operating expenses in the statement of profit or loss shown above.

Note 6: Non-current assets

The company imported the following assets from the Republic of RiverLand:

Date of importation	***Asset imported***	***Original cost***
3 January 2025	Mining equipment	RL$450,000
20 April 2025	Smelter equipment	RL$600,000

In addition, the company bought the following assets from Zambian suppliers and paid for them in Zambian Kwacha:

Date of purchase	***Asset imported***	***Original cost (ZMW)***
20 January 2025	Delivery Trucks	27,500,000
3 February 2025	Personal – to -holder cars	32,000,000

The personal-to-holder cars comprise of a Toyota LandCruiser V8 (SUV) Car (3200 cc), Toyota Fortuner (SUV) Car (3000 cc), Toyota Hilux Double Cab Van (2900 cc) and Ford Ranger Double Cab Van (2600 cc). Each of the vehicles were purchased at a cost of K8,000,000. The cars are used on a personal-to-holder basis by the Chief Executive Officer, Finance Director, Operations Director and Human Resources Director respectively. It has been agreed with the Commissioner General that 40% of the total mileage of each car relates to private purposes.

Note 7: Double Taxation Relief

There is no double taxation convention between the Republic of Zambia and the Republic of RiverLand. Any double taxation relief is given by way of unilateral credit relief.

Note 8 Exchange Rates

The Bank of Zambia mid average exchange rate should be taken to be K28 per RL$1 during the year ended 31 December 2025, and K26.50 per RL$1 for the year ended 31 December 2024. These exchange rates should be used where applicable.

The indexation formula where applicable is as follows:

$$1+\frac{(R_2-R_1)}{R_1}$$

Required:

(a) Calculate the amount of income tax payable by Shepherd Hamutete for the tax year 2025. (9 marks)

(b) Advise the Directors of Orange Minerals Zambia Plc of the income tax implications arising from the listing of shares on the Lusaka Securities Exchange and subsequent issue of shares. (2 marks)

(c) Advise the Directors of Orange Minerals Zambia Plc of the income tax implications arising from the loan obtained by Orange Minerals Zambia from its parent company Orange Metal Fabricators Inc. (3 marks)

(d) Calculate Orange Minerals Zambia Plc's adjusted mining profit for the tax year 2025. (19½ marks)

(e) Compute the amount of income tax payable by Orange Minerals Zambia Plc for the tax year 2025. (6½ marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt any THREE (3) questions.

QUESTION TWO

Mulusa and Kalusa wish to commence running a trading company known as Lusa Ltd, on 1 January 2025, which will be engaged in importation and sale of construction materials. Mulusa will hold 90% of the ordinary shares of Lusa Ltd, while Kalusa will hold the remaining 10%. Mulusa and Kalusa will run the company as full-time working directors of the company. For the year ended 31 December 2025, Mulusa and Kalusa wish to withdraw annual amounts of K500,000 and K350,000 respectively from the company either as gross director's emoluments or as dividends and are keen to know what the taxation implications of drawing profits under each one of these two (2) options would be.

The earnings ceiling for the purposes of NAPSA contributions is K409,968 per annum.

Required:

(a) Assuming that Mulusa and Kalusa each draw the profits as director's emoluments:

(i) Explain, with appropriate supporting computations, the income tax and NAPSA implications for each individual. (4 marks)

(ii) Explain, with appropriate supporting computations, the income tax and NAPSA implications for Lusa Ltd. (4 marks)

(iii) Show their overall after-tax position (cash flows). (4 marks)

(b) Assuming Mulusa and Kalusa each draw profits as dividends:

(i) Explain, with appropriate supporting computations, the income tax and NAPSA implications for each individual. (2 marks)

(ii) Explain, with appropriate supporting computations, the income tax and NAPSA implications for Lusa Ltd. (2 marks)

(iii) Show their overall after-tax position (cash flows). (2 marks)

(c) Based on your evaluations in parts (a) and (b) above, advise them as to whether they should draw the profits as emoluments or as dividends. (2 marks)

[Total:20 Marks]

QUESTION THREE

You are employed in the Tax Department of Aztec Chartered Accountants. You are dealing with the tax affairs of Diamond General Insurance Ltd, a Zambian resident company providing general insurance services. As part of the current year's assignment, you have been tasked with reviewing last year's (tax year 2024) tax returns and other records and advising on the company's tax compliance in readiness for a tax audit which will soon be performed by the ZRA on tax affairs of the company.

During your work, you discover the following issues relating to the tax year 2024:

(1) The Managing Director withdrew K300,000 for personal private expenses which he is not entitled to under his contract of employment. No entries were made in the financial statements in relation to the transaction. The Managing Director holds a shareholding of 10% of the equity shares of Diamond General Insurance Ltd.

(2) Capital allowances on pool motor cars acquired by the company during the tax year 2024 at a cost of K18,500,000 were claimed at the rate of 25%, while wear and tear allowances on expenditure incurred on purchasing second hand buildings for new branches on the Copperbelt amounting to K55,500,000 were charged at the rate of 5%.

You have further established that the self-assessment income tax return for the previous tax year was filed in on the relevant due date. You have discussed the above matters with the directors who have asked your firm to help in determining any potential tax liabilities arising from the above matters, and they have indicated that the company is committed to paying any potential tax liabilities on 31 December 2025.

You have been further provided with the following information that has been extracted from the financial statements of the company for the current year ended 31 December 2025:

	K'000
Investment income (Note1)	12,623
Other income (Note 2)	21,417
Provision for unearned premiums on 1 January 2025	161,625
Provision for unearned premiums on 31 December2025	137,925
Insurance claims paid to customers	86,738
Operating expenses (Note 3)	363,188
Outstanding claims from customers on 1 January 2025	81,675
Outstanding claims from customers on 31 December2025	94,050
Gross insurance premiums	745,621
Re-insurance premiums paid	315,750
Amounts received under reinsurance	122,738

The following additional information is available:

Note 1: Investment income.
This comprises GRZ bond interest of K6,885,000 (net), dividends from LuSE listed companies of K2,550,000 (net) and gross income from letting of property of K3,188,000.

Note 2: Other income.
This comprises management fees of K15,300,000 (net) and fair value gains on investment property of K6,117,000.

Note 3: Operating expenses.
These include depreciation of K5,183,000, media advertising expenses of K926,000, employee emoluments of K144,113,000, refreshments for customers of K92,000, donations to public benefit organisations which are not approved for tax purposes amounting to K55,650,000 and the remaining balance of K157,224,000 represents general allowable operating expenses.

Included in employee emoluments are gross director's emoluments for the Managing Director of K2,100,000, who is accommodated in a company owned house for which he does not pay any rent.

Note 4: Buildings, Implements, plant and machinery.
On 1 January 2025, the only assets qualifying for capital allowances included pool motor cars which were acquired in the tax year 2024 at a cost of K18,500,000 and second-hand buildings for branches on the Copperbelt purchased in the tax year 2024 at a cost of K55,500,000.

Required:

(a) In relation to the issues discovered in tax returns for the tax year 2024, advise the directors of the income tax implications of each matter. Your answer should be supported by computations of the amount of tax underpaid. (8 marks)

(b) Compute the amount of income tax payable by Diamond General Insurance for the tax year 2025. (12 marks)

[Total:20 Marks]

QUESTION FOUR

You are employed in a firm of Chartered Accountant as a Tax Manager. You are dealing with the tax affairs of David and Thandiwe who are clients of your firm.

David is a Zambian resident aged 56 years who retired from employment on 31 May 2025. He was working for PreCure Ltd, a Zambian pharmaceuticals company, at an annual salary of K296,400. He was also entitled to a housing allowance of 20% of the basic salary. Income tax deducted under pay as you earn amounted to K19,126 during the tax year 2025.

On 1 August 2025 David died after a short illness, leaving behind the following assets:

	Market value
	K
Motor vehicles	560,000
20 Hectre Farm	1,400,000
20,000 equity shares in Blue Ltd	420,000
Bank deposit Account	201,000

David left a will splitting his assets between his two (2) children, Thandiwe and Pandawe in the ratio 3:2.

Prior to his death, David had created a trust, on 1 January 2025, into which he transferred ownership of two (2) businesses under the administration of trustees for the benefit of his children. Thandiwe was appointed as an executor in the will left by her father. She is seeking advice on the taxation implications, if any, arising from the assets inherited from David upon his death and the trust left behind by her father.

Thandiwe has provided you with the following information relating to the two (2) businesses comprising the trust:

Letting business

This comprises two (2) properties which are let out on a commercial basis. These properties are now managed by the trustees.

The following information relates to the two (2) properties for the year ended 31 December 2025:

Property 1- Shopping Complex

The shopping complex comprises twelve (12) shops and is let out at a monthly (gross) rental of K6,500 per shop. Maintenance expenses amounted to K1,100 per month per shop during the year ended 31 December 2025.

Property 2 –Residential Property

This consists of residential property made up of seven (7) flats and is let out at a monthly gross rental amounting to K3,600 per flat. Maintenance expenses amounted to K1,400 per month per flat.

Retail Business

This comprises a chain of supermarkets. The annual turnover of the business has always exceeded K5,000,000. The profit as per accounts recorded for the year ended 31 December 2025 amounted to K1,150,000. This profit was arrived at after taking into account of the following items:

(1) Salaries and wages amounting to K1,220,000. This figure includes salaries for the Trustees amounting to K680,000. The balance is the figure for employees' salaries.

(2) Operating expenses amounting to K2,400,000. This figure includes depreciation amounting to K122,000, donation to an approved public benefit organization of K40,000, entertaining customers K62,000, entertaining board of trustees K48,000, loans to former employees written off amounting to K100,000, donation to a political party of K18,400 and staff refreshments of K82,000. The balance is made up of revenue expenses which are all allowable.

Other information relating to the retail business

Capital allowances on assets used in the retail business have been agreed at K208,000 for the tax year 2025.

Required:

(a) Advise Thandiwe of the property transfer tax implications arising from:

(i) The transfer of property comprising the letting business and retail business into a trust on 1 January 2025. (2 marks)

(ii) The transfer of assets comprising David's Estate to his children upon his death on 1 August 2025. (2 marks)

(b) Advise Thandiwe of the tax treatment of the income earned by David before the date of death. Your answer should include a computation of income tax payable by David for the tax year 2025. (4 marks)

(c) Advise Thandiwe of how the income of the trust will be treated for tax purposes and the tax treatment of any income that will be distributed by the trustees to the beneficiaries. (4 marks)

(d) Compute the amount of tax arising on the income generated by the trust in the tax year 2025. (8 marks)

[Total: 20 Marks]

QUESTION FIVE

You are employed in a firm of Chartered Accountants. You are dealing with the tax affairs of PESTEL Ltd, a VAT registered Zambian resident company engaged in manufacturing, which is not listed on the Lusaka Securities Exchange. The company is a subsidiary of Bamboo Plc, a company resident in a foreign country. The directors of PESTEL were served with a notice for a tax audit by the Zambia Revenue Authority (ZRA). The company has not been audited for tax purposes for five years now. Whilst performing your work you discovered the following issues:

(1) In addition to manufacturing operations, the company diversified into farming operations a few years ago. However, income from farming operations has never been disclosed on the income tax returns the company has been filling with the ZRA, despite the company making substantial amounts of profit. The directors are confident that this source of income cannot be unveiled by the tax auditors.

(2) The company acquired a Toyota Hilux Double Cab Van on 1 April 2025 under a finance lease. The lease contract is for four (4) years at an annual lease rental of K108,200. The cash price of the asset if bought out rightly is K952,824 (VAT inclusive). The interest implied in the lease rental amounted to K21,120 for the year ended 31 December 2025.

(3) The company engaged its parent company to provide specialised installation services of an integrated production system. The system is estimated to cost K6,900,000 (VAT exclusive) including installation fees. Bamboo Plc has not appointed a tax paying agent to act on its behalf in Zambia.

(4) The company introduced an employee share option scheme three years ago. On 1 February, 2025, qualifying employees exercised their options and acquired a total of 600,000 shares of the company (each having a nominal value of K1) under the scheme at an exercise price of K8.05 per share. The open market value of each share on 1 February 2025, determined using share valuation methods which are approved for tax purposes was K10.00 per share. The company incurred K66,100 to administer the share option scheme for the year ended 31 December 2025. The share option scheme is not approved by the Commissioner General for tax purposes.

Required:

(a) Explain the three (3) audit procedures the tax auditors should carry out to uncover hidden income when performing a tax audit at PESTEL. (3 marks)

(b) Explain any three (3) procedures tax auditors may perform to assess the true level of income in situations where the taxpayer has insufficient or incomplete financial records. (3 marks)

(c) Advise the directors using appropriate supporting computations of the taxation implications arising from:

(i) The purchase of the Toyota Hilux Double Cab Van under a finance lease arrangement. (4 marks)

(ii) The specialised installation services of an integrated production system received from the parent entity. (5 marks)

(iii) The transactions which took place in the share option scheme during the tax year 2025. (5 marks)

[Total: 20 Marks]

END OF PAPER

CA3.4 ADVANCED TAXATION
SUGGESTED SOLUTIONS
SOLUTION ONE

(a) SHEPHERD HAMUTETE
PERSONAL INCOME TAX COMPUTATION FOR THE TAX YEAR 2025

	K	K
Salary (K1,584,000 x 9/12)		1,188,000
Foreign income		
Dividends (RL$3,808 x K28 x 100/68)	156,800	
Bank interest (RL$1,840 x K28 x 100/80)	64,400	
		221,200
Taxable income		1,409,200
Income Tax		
First K110,400		12,360
Excess (K1,409,200 – K110,400) x 37%		480,556
Income tax liability		492,916
Less:		
Income tax paid under PAYE		(218,400)
Double taxation relief:		
Dividends		(50,176)
Bank deposit interest		(12,880)
Income tax payable		211,460

WORKINGS

(1) Double taxation relief on dividends

Foreign income tax paid: K156,800 x 32% = K50,176

Equivalent Zambian tax
Gross foreign income x Zambian tax charge
Total assessable income

K156,800 x K492,916
K1,409,200
= K54,846

The double taxation relief is K50,176 which is the lower of the Zambian tax.

(2) Double taxation relief on bank deposit interest

Foreign income tax paid: K64,400 x 20% = K12,880

Equivalent Zambian tax
Gross foreign income x Zambian tax charge
Total assessable income

K64,400 x K492,916
K1,409,200
= K22,526

The double taxation relief is K12,880 which is the lower of Zambian income tax charge.

(b) Income tax implications arising from listing of shares on the Lusaka Securities Exchange:

(1) The company will be entitled to a discount of 2% for listing its shares on the Lusaka Securities Exchange. This discount is only available in the year of listing. This means that Orange Minerals will be charged income tax for the tax year 2025 at a rate of 28% (30% - 2%).
(2) The costs incurred by the company in obtaining the listing are not allowable for income tax purposes. Therefore, the total costs incurred on listing will be added back to the taxable business profits.
(3) The company will not enjoy a further discount of 5% as only 25% of the issued equity shares are held by indigenous Zambians. Therefore, it does not meet the one-third (1/3) threshold.
(1 mark per valid point up to 2 marks)

(c) Income tax implications of The loan obtained from Orange Metals Fabricators

Where a Zambian resident company obtains a loan from a company within the same group that is resident outside Zambia, the interest rate charged on that loan should be an arm's length (open market) interest rate.

Where the interest rate charged is higher than the open market interest rate, then the finance cost will be overstated in the statement of profit or loss and hence, reducing the taxable income of the Zambian resident company. Therefore, Orange Minerals will disallow the interest cost equal to the difference between 31% and 25% of the loan amount.

The amount to be disallowed will be: RL$16,000,000 x K28 x (31% - 25%) x 9/12 = K20,160,000.

The adjusted interest expense will only allowable when computing the tax adjusted profit for Orange Minerals if it does not exceed 30% of the companies Tax EBITDA. Any interest expense exceeding this threshold will be disallowed and can be carried forward to be offset in the following five years.

(1 mark per valid point up to 3 marks)

(d) COMPUTATION TAX ADJUSTED MINING PROFIT AND INCOME TAX PAYABLE BY ORANGE MINERALS FOR THE TAX YEAR 2025

	K	K
Profit before tax		230,945,000
Add:		
Construction of community hospital	20,000,000	
Construction of township roads	30,000,000	

Depreciation	11,100,000		
LuSE listing and share issue costs	860,000		
Amortization	5,800,000		
Fines for pollution of local river	560,000		
Transfer pricing adjustment:			
Loan from Metal Fabricators Inc (c)	20,160,000		
Personal-to-holder car benefit:			
Chief Executive Officer	57,600		
Finance Director	57,600		
Operations Director	57,600		
Human Resources Director	43,200		
		88,696,000	
		319,641,000	
Less:			
Interest on GRZ Bonds	2,125,000		
Capital allowances	29,155,000		(W1)
		(31,280,000)	
Taxable mining profit before interest adjustment		288,361,000	
Disallowed interest		Nil	(W2)
Taxable mining profit		288,361,000	

(1) COMPUTATION OF CAPITAL ALLOWANCES

	K
Mining equipment	
Wear & tear: (RL$450,000 x 20% x K28)	2,520,000
Smelter equipment	
Wear & tear: (RL$600,000 x 20% x K28)	3,360,000
Delivery trucks	
Wear & tear: (K27,500,000 x 25%)	6,875,000
Personal-to-holder cars	
Wear & tear: (K8,000,000 x 20%) x 4	6,400,000
Community hospital	
Wear & tear: (K20,000,000 x 20%)	4,000,000
Township roads	
Wear & tear: (K30,000,000 x 20%)	6,000,000
Total capital allowances	29,155,000

(2) COMPUTATION OF TAX EBITDA AND DISALLOWED INTEREST

	K
Taxable mining profits	288,361,000
Interest on GRZ Bonds (K2,125,000 x 100/85)	2,500,000
	290,861,000
Depreciation	11,100,000
Amortization	5,800,000
Finance costs (K110,000,000 – K20,160,000)	89,840,000
Tax EBITDA	397,601,000
Finance costs	89,840,000
Allowable interest (K397,601,000 x 30%)	119,280,300
Disallowed interest	Nil

(3) ALTERNATIVE COMPUTATION OF TAXABLE MINING PROFIT

	K	K
Profit before interest and tax		338,820,000
Add:		
Construction of community hospital	20,000,000	
Construction of township roads	30,000,000	
Depreciation	11,100,000	
LuSE listing and share issue costs	860,000	
Amortization	5,800,000	
Fines for pollution of local river	560,000	
Transfer pricing adjustment:		
Personal-to-holder car benefit:		
Chief Executive Officer	57,600	
Finance Director	57,600	
Operations Director	57,600	
Human Resources Director	43,200	
		68,536,000
		407,356,000
Less:		
Capital allowances		(29,155,000)
Mining profit before allowable interest expense		378,201,000
Allowable interest (W4)		(89,840,000)
Taxable mining profit after interest expense		288,361,000

(4) ALTERNATIVE COMPUTATION OF TAX EBITDA AND DISALLOWED INTEREST

	K
Taxable mining profits	378,201,000
Interest on GRZ Bonds (K2,125,000 x 100/85)	2,500,000
	380,701,000
Depreciation	11,100,000
Amortization	5,800,000
Tax EBITDA	397,601,000
Finance costs (K110,000,000 – K20,160,000)	89,840,000
Allowable interest (K397,601,000 x 30%)	119,280,300
Disallowed interest	Nil

The adjusted interest expense is less than 30% of the tax EBITDA of K119,280,300. Therefore, the whole interest expense of K89,840,000 is allowable for tax purposes.

(e) ORANGE MINERALS

COMPANY INCOME TAX COMPUTATION FOR THJE TAX YEAR 2025

	K
Taxable mining profit	288,361,000
Add:	
Interest on GRZ bonds (K2,125,000 x 100/85)	2,500,000

Total taxable income	290,861,000
Company income tax	
Mining: [K288,361,000 x (30% - 2%)]	80,741,080
Interest on GRZ Bonds: [K2,500,000 x (30% - 2%)]	700,000
Income tax liability	81,441,080
Less:	
WHT – Interest (K2,500,000 x 15%)	(375,000)
Provisional income tax paid	(21,410,300)
Income tax payable	59,655,780

SOLUTION TWO

(a) (i) TAX IMPLICATIONS FOR MULUSA AND KALUSA INDIVIDUALLY

(1) The emoluments will be taxable normally under PAYE using the income tax bands for individual as follows:

	Mulusa K	Kalusa K
Salaries	500,000	350,000
Income Tax		
On the first K110,400	12,360	12,360
On the excess		
K389,600/K239,600 x 37%	144,152	88,652
Income Tax payable	156,512	101,012

(2) the emoluments will attract employee's NAPSA contributions for each individual and these will amount to:

Mulusa's employee's NAPSA contribution

K409,968 x 5% = K20,498

Kalusa's employee's NAPSA contribution

K350,000 x 5% = K17,500

(ii) TAX IMPLICATIONS FOR LUSA LTD

(1) The gross director's emoluments of K850,000 (K500,000 + K350,000) will be allowable when computing taxable profits.

(2) The extraction of the above amounts as emoluments will therefore result in tax savings of:

K850,000 x 30% = K255,000

(3) The emoluments will attract employers NAPSA contributions which will be allowable when computing taxable profits and these will amount to:

Mulusa's employee's NAPSA contribution

K409,968 x 5% = K20,498

Kalusa's employee's NAPSA contribution

K350,000 x 5% = K17,500

(4) The payment of the employer's NAPSA contributions will therefore result in tax savings for the company of:

(K20,498 +17,500) x 30% = K11,399

(iii) OVERALL TAX POSITION

Their overall tax position will be as shown below:

Personal Income Tax payable	
- Mulusa	156,512
- Kalusa	101,012
Employee's NAPSA (K20,498 +K17,500)	37,998
Employer's NAPSA (K20,498 +K17,500)	37,998
Total statutory payments	333,520
Less Tax Savings on:	
Director's emoluments	(255,000)
Employer's NAPSA Contributions	(11,399
Net after tax cash outflow	67,121

(b) (i) TAX IMPLICATIONS FOR MULUSA AND KALUSA INDIVIDUALLY

(1) Dividends are subjected to withholding tax at the rate of 15%. This amount of withholding tax is the final tax payable, and therefore the individual directors will not be subjected to personal income tax on the dividends.

(2) The amount of the WHT on the dividends will be:

(K500,000 + K350,000) x 15% = K127,500

(3) Employees NAPSA contributions will not be payable by Mulusa nor Kalusa as dividends are not earnings for NAPSA purposes.

(ii) TAX IMPLICATIONS FOR LUSA LTD

(1) The dividends paid will not be allowable when computing the taxable profit of the company.

The final taxable profit will therefore be higher by the amount of the dividends not given as an allowable deduction ultimately increasing the company income tax payable by K255,000 [(K500,000 +K350,000) x 30%]

(2) Employer's NAPSA contributions will not be payable on the dividends as they are not earnings for NAPSA contributions purposes.

The final taxable profit will therefore be higher by the amount of the employer's NAPSA's not available as allowable deductions ultimately increasing the company income tax payable by K11,399. [(K20,498 +17,500) x 30%]

(iii) The overall after-tax cash outflow position will therefore be equal to the

	K
WHT paid on dividends of	127,500
Plus increase in the company income tax payable (K255,000 + K11,399)	266,399

Giving a total tax outflow of	393,899

(c) It will be beneficial to withdraw profits as emoluments as the overall after-tax cash outflow under this option will be lower than if dividends are drawn by:

K393,899 – K67,121 = K326,778

SOLUTION THREE

(a) Payment of personal expenses

(1) The Managing Director holds 10% of the issued equity shares of Diamond General Insurance Ltd, which is more than 5%. This means that the director is an effective shareholder of the company.
(2) The Managing Director withdrawal of K300,000 for personal private expenses will constitute a loan to an effective shareholder. This is because the definition of a loan to an effective shareholder under the Income Tax act includes the difference between the cost of providing any benefit or advantage and the amount paid for such benefit or advantage when provided, whether such is convertible into cash or not.
(3) The company should have computed income tax, without assessment, on the amount withdrawn at a rate of 37% of the grossed up equivalent amount. The amount of Income Tax underpaid on the loan is K300,000 × 37/63 = K176,190.

Capital allowances on pool motor cars and buildings

(1) Capital allowances on the pool motor cars acquired by the company during the tax year 2024 should have been claimed at 20% and not 25% being non-commercial motor vehicles.
(2) Capital allowances on the buildings for the branches should have been claimed at 2% and not 5% being commercial buildings and not industrial buildings.
(3) Tax under paid is computed as shown below:

	K
Pool cars (25% - 20%) x K18,500,000	925,000
Buildings for branches (5% - 2%) x K55,500,000	1,665,000
Income Understated	2,590,000
Tax under paid @30%	777,000
Income Tax on loan to effective shareholder	176,190
Total Tax Underpaid	953,190

(b) COMPUTATION OF TAXABLE INCOME AND COMPANY INCOME TAX PAYABLE

	K	K'000
Gross premiums		745,621
Interest Income		
GRZ bond interest		
(K6,885,000 x 100/85)		8,100
Other income		
Management fees (K15,300,000 x 100/85)		18,000
		771,721
Less Re-insurance premium paid		(315,750)
Add:		

Reserve for unearned risks at 1 Jan 2025	161,625	
Reserve for unearned risks at 31 Dec 2025	(137,925)	
		23,700
Less		
Outstanding claims from customers at 1 Jan 2025	81,675	
Outstanding claims from customers at 31 Dec 2025	(94,050)	
		(12,375)
Less		
Actual losses/insurance claims paid to customers	(86,738)	
Amounts received under reinsurance	122,738	
		36,000
		503,296
Less Other allowable expenses		
media advertising expenses	926	
Employee emoluments	144,113	
General operating expenses	157,224	
		302,263
Less Capital Allowances		201,033
Buildings for branches (K55,500,000 x 2%)	1,110	
Pool motor cars (K18,500,000 x 20%)	3,700	
		(4,810)
		196,223
Add Taxable benefits		
Accommodation benefit (37% x 2,100,000)		777
Taxable income		197,000
Company income Tax		
(K197,000,000 x 30%)		59,100
Less WHT on:		
GRZ bond interest(K8,100,000 x 15%)		(1,215)
Management fees (K18,000,000 x 15%)		(2,700)
Company income tax payable		55,185

SOLUTION FOUR

(a) (i) Property Transfer tax implications on transfer of businesses into trust

When a settlor transfers property to trustees during the settlor's lifetime, property transfer tax (PTT) is not payable as the transfer of property into a trust for the benefit of the settlor's children is an exempt transfer for PTT purposes.

(ii) Transfer of estate to the deceased

Where property is transferred to members of the immediate family on the death of an individual, then such a transfer is exempt from property transfer tax. Therefore, there will be no property transfer tax to be paid by Thandiwe and Pandawe on the inheritance of qualifying property left behind by their father.

There will be no other tax implications on the transfer of motor vehicles and bank deposit account forming part of David's estate because they do not qualify as property, for property transfer tax purposes.

(b) Income tax implications arising from income earned by David before the date of death.
Income may be received after the individual's death even though they were entitled to it, or it was due and payable to them, before they died. Such income must be included in the assessment on the deceased individual for the period before their death from the beginning of the tax year to the date of death.

This means that all income earned by David before the date of death will be assessed on him and the tax will be paid by the executors. The following is a computation of the amount of income tax payable by David for the tax year 2025:

DAVID
PERSONAL INCOME TAX COMPUTATION FOR THE TAX YEAR 2025

	K
Basic salary (K296,400 x 5/12)	123,500
Housing allowance (K123,500 x 20%)	24,700
Total taxable income	148,200
Income Tax	
First K110,400	12,360
Excess (K148,200 – K110,400) x 37%	13,986
Income tax liability	26,346
Less:	
Income tax paid under pay as you earn	(19,126)
Income tax payable	7,220

(c) A trust is assessed as a person other than an individual and therefore the income of a trust is taxable at 30%. The trust will generate income both from letting of property and

income from a retail trade.

The tax treatment of the income from the trust will therefore follows:

(1) Income from letting of property

Income from the letting business will not be subjected to normal income tax at a rate of 30% as rental income is subjected to rental income tax. The rental income tax will be charged on the gross rentals without deducting any expenses which will be incurred wholly and exclusively in running the letting business. This means that all the maintenance expenses incurred by the trust will not be deductible when computing the rental income tax.

(2) Income from retail trade

The annual turnover of the trust is more than K5,000,000; therefore, it will be subjected to income tax at the rate of 30% on the taxable business profits. All expenses incurred wholly and exclusively in managing the trust will be deductible when computing the taxable income from the trust.

(3) Tax treatment of income distributed to beneficiaries

Where a beneficiary is entitled to the income of a trust, that income may be taxed in their hands instead of being taxed as the income of the trust. If any tax has already been paid on such income before it reaches the hands of the beneficiary, it will be set off against any tax raised on them. (1 mark)

(d) COMPUTATION OF TAX ARISING ON INCOME FROM LETTING OF PROPERTY

GROSS RENTAL INCOME

	K
Shopping complex (K6,500 x 12 x 12)	936,000
Residential property (K3,600 x 7 x 12)	302,400
Gross rental income	1,238,400
Rental Income Tax	
First K12,000 @0%	0
Next (K800,000 – K12,000) x 4%	31,520
Excess (K1,238,400 – K800,000) x 16%	70,144
Total rental income tax	101,664
Monthly rental income tax: (K101,664/12)	8,472

COMPUTATION OF INCOME TAX ON INCCOME FROM RETAIL TRADE

The income tax payable by the estate is as follows:

	K	K
Net profit as per accounts		1,150,000
Add:		

Depreciation	122,000	
Entertaining customers	62,000	
Loans to former employees written off	100,000	
Donation to political party	18,400	
Staff refreshments	82,000	
		384,400
		1,534,400
Less:		
Capital allowances		(208,000)
Taxable business profits		1,326,400
Income tax payable: (K1,326,400 x 30%)		397,920

SOLUTION FIVE

(a) The tax auditors should carry out the following audit procedures to uncover hidden income:

(1) The tax auditor should request for the taxpayer's statement of affairs setting out all of their assets and liabilities as on the specified date.

(2) The tax auditors should request third parties such as suppliers, and customers to be available for inspection any books and records or information and explanations in relation to a tax payer that may be relevant to the taxpayer's liability to tax.

(3) Tax auditors should request the financial institutions to make available details of accounts and financial transactions, which may be material in determining the taxpayer's liability.

(b) The following are the procedures tax auditors can perform to ascertain the true level of income in situations where the taxpayer has insufficient or incomplete financial records:

(1) The tax auditors can reconstruct the statement of financial position based on existing non-current assets and other balances such as inventories and cash.

(2) The tax auditor may use financial ratios to generate a statement of profit or loss and other statements to estimate the actual taxable income.

(3) The tax auditors can make an estimated assessment using for example, the life style of the tax payer or the level of similar businesses of the same size and industry.

(c) The following are the taxation implications:

(i) Purchase of Toyota Hilux Double Cab Van under a finance lease

(1) PESTEL will not be able to claim input VAT on the cost of the Toyota Hilux Double Cab Van as input VAT incurred on non-commercial vehicles is irrecoverable.

(2) Interest implied in the finance lease rentals is allowable for taxation purposes for as long as it does not exceed 30% of the tax earnings before interest, tax, depreciation and amortization (EBITDA).

(3) PESTEL will be able to claim capital allowances at a rate of 20% of the VAT inclusive cost of the motor vehicle. The amount of capital allowances claimable will be: K952,824 x 20% = K190,565.

(4) The finance lease rentals are not deductible when computing the taxable business profits of the company.

(ii) Provision of specialised installation services by the parent company

(1) The company will be deemed to have imported services as the installation of integrated production system was provided by a non-resident supplier. Bamboo Plc has not appointed a tax paying agent in Zambia, PESTEL will be required to account for and pay reverse VAT.

(2) The amount of reverse VAT payable by PESTEL will be: K6,900,000 x 16% = K1,104,000. This VAT will be included in the output VAT of PESTEL.
(3) PESTEL will not be able to claim reverse VAT of K1,104,000 as input VAT as the reverse VAT is irrecoverable.
(4) The company will be able to claim capital allowances on the production system at a rate of 50% of the total cost including reverse VAT. i.e, (K6,900,000 + K1,104,000) x 50% = K4,002,000.

(iii) Employee share option scheme

(1) The cost incurred to administer the employee share option scheme amounting to K66,100 will not be deductible when computing the taxable business profits of PESTEL.

(2) PTT will be chargeable on the company on the realised value of the shares issued to the employees under the scheme as the company is not listed on the LuSE and the share option scheme is not approved for tax purposes.

(3) The realised value of the shares will be their market value K6,000,000, (600,000 K10) being higher than nominal value of K600,000 (K600,000 x K1).

The amount of property transfer tax will be

K6,000,000 x 8%= K480,000

(4) The gain arising for the employees on the exercise of share options by the employees will be taxed as income on each employee. The taxable income will be determined as the difference between the open market value of each shares each employee will acquire and the exercise price of the shares.

END OF SUGGESTED SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA 3.5: ADVANCED MANAGEMENT ACCOUNTING

TUESDAY 9 SEPTEMBER 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

Safari Plc (S Plc) is a company engaged in several areas of business. There is a contracting division which specialises in building large office and industrial complexes, a computer bureau which deals with providing computing services to businesses of all sizes and a novelty toy manufacturing and selling business. The contract manufacturing division is having problems and the directors need your help to sort them out.

The contract manufacturing business has been running for several years. The estimating department is considered reliable, and all members of this department are committed individuals with a lot of experience in designing and costing structures. The current contract for a motorway bridge has, however, run into difficulties. The contract is half completed and financial data relating to it is as follows:

	Budget to date	**Actual to date**
	K'000	**K'000**
Materials	20,000	24,000
Labour	12,000	15,000
Overheads	8,000	9,000
Sales value	50,000	50,000
Retention	0%	10%

N.B:

- *Retentions will be paid after one year assuming that no further problems occur which need putting right.*
- *Retentions are 10 % of sales value or contract price.*

Costs to complete (estimated) are as follows:

Materials	K24 million
Labour	K16 million
Overhead	K8 million

The total contract price is K120 million.

Problems centre around facing stones for the outer walls. The company has never dealt with these before and the quality of the stones appears to be poor which has led to many breakages. The suppliers argue that this is due to the untrained workforce and not their product and they have refused to replace broken slabs. The company estimates that this has caused all of the excess cost on materials and 50% of excess costs on labour and overhead. The remainder of the overruns (extra costs or excesses) are due to employing less skilled contract labour than in the past in a bid to save money and improve the profitability of the contract.

A visit to the site shows you that a lot of materials are waiting to be used and have been left at inconvenient places by suppliers, causing additional work to be undertaken to move them.

The Directors of Safari (S Plc) Plc have called you in to help them. They tell you that the Bank Managers are seriously worried by this contract and consider that it could bring the company down. They have refused to lend the division any more money, so all further financing will need to be met internally. Currently, interest rates are at 10%.

Required:

(a) (i) Identify and evaluate relevant quantitative and qualitative performance measurements for this contract.

Make reasonable assumptions in your quantitative evaluation.

(10 marks)

(ii) Evaluate the use of financial and non-financial measures in performance management system for a firm such as S Plc. (7 marks)

(iii) Advise the directors of a suitable strategy to put in place to avoid any further cost overruns, and suggest measures which need to be monitored to make sure these strategies are being adhered to. (17 marks)

N.B*: Candidates should note that this question is not necessarily about contract costing but a contract in general.*

One division of S Plc which is mentioned in the scenario is the computer bureau. To measure the performance of the Managers in this bureau, the controllability principle is applied. However, there is one case study evidence that divisional managers are assessed using divisional management accounts which include uncontrollable items.

Required:

(b) Evaluate the arguments for using the controllability principle in divisional management accounts.

(6 marks)

[Total: 40 marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt any THREE (3) questions in this section.

QUESTION TWO

Zazuu Plc (Z Plc) a global company that sells consumer goods. The company is currently revising its performance management system to motivate employees and improve productivity. The Board of Directors is considering adopting a new performance measure system that rewards managers based on short-term financial results, such as quarterly revenue and cost-cutting initiatives.

The Chief Financial Officer (CFO), Rachel Musonda, has expressed concern that such measures might encourage Managers to engage in unethical practices, such as inflating revenues or cutting essential operational costs to meet targets. Additionally, the CFO is worried that focusing solely on short-term financial performance could undermine long-term sustainability, quality, and customer satisfaction.

Some of the other Senior Managers believe that the short-term focus is necessary to meet shareholder expectations, and they argue that employees should be held accountable for immediate results.

Required:

(a) Discuss the potential ethical issues with the proposed performance measures.

(8 marks)

(b) Recommend how these ethical issues would be addressed to ensure that the measures align with ethical standards and long-term organisational goals.

(8 marks)

(c) Discuss the role of a Strategic Management Accountant in an organisation such as Z Plc.

(4 marks)

[Total: 20 marks]

QUESTION THREE

CK Ltd is a high technological company whose Board of Directors recently appointed a new Chief Executive Officer (CEO). The company is a supplier of technological equipment in Zambia. The new CEO has observed some lapses in the way CK Ltd is operating and in order to improve efficiency, he wants to find a way of reducing costs which he thinks are extremely high.

The organization structure is too big and may need to be realigned to improve service delivery to customers who are based in all ten (10) provinces of the country. He equally thinks that CK Ltd needs more internal controls. However, these controls should not affect service delivery but should improve already existing entrepreneurial culture.

During the management meeting the CEO announced that in the second quarter of the year there will be a shift from functional structure to provincial structure. He indicated that some functional positions will have to be realigned in order to meet the needs of senior managers across all the ten (10) provinces. He further said those managers whose positions will be affected by these changes will have an option of retiring or reapplying for provincial positions available.

The Human Resources Manager (HRM), who will manage the process has indicated that during the recruitment process, the selected candidates should demonstrate that they understand the new agenda of the new CEO and can fit in the organization's culture. Due to limited time, the HRM was tasked to complete this task within two (2) months.

After two (2) weeks, it was reported that all the provinces had not yet received Provincial Managers. When a follow up was done by provincial staff from the Head Office, the HRM explained that he had difficulties implementing the suggested changes because top management at head office were not willing to facilitate the changes. Further, there were threats of resignations and of reporting the company to the labour office as they felt their rights were being trampled upon by the new CEO.

Required:

(a) Advise CK Ltd management through a written report highlighting mistakes which could have contributed to the failure of change management and recommend how CK Ltd should implement the suggested changes. (16 marks)

.

(b) Explain the forces of change and causes of resistance in CK Ltd indicating clearly whether these resistances are internal or external. (4 marks)

[Total: 20 Marks]

QUESTION FOUR

Mabloko Ltd (M Ltd) is a multi-divisional company based in the North-Western Province of Zambia. The largest division is the construction division, Division C. One other division is the quality and services division, Division Q.

Division C produces burnt clay bricks and concrete blocks. The industry for clay and concrete bricks has grown because of the government's desire to develop infrastructure such as roads, hospitals and schools; and encouraging home ownership. M Ltd has benefited from this development.

In constructing roads and office blocks, making fired clay bricks and concrete bricks, M Ltd uses materials such as cement, raw clay, quarry stones, asphalt and gravel stones. The construction materials market growth has continued throughout the COVID-19 pandemic and afterwards. The Zambian government recently directed that energy efficiency and environmental impact reduction be complied with in the building and construction industries. It increased the targets for energy efficiency and set a target for carbon neutrality by 2050.

The Zambian brick industry is dominated by small to medium-sized companies carrying out labour-intensive production. Rivalry among competitive companies is fierce as there are quite a few number of equally balanced companies with low differentiation and low switching low switching costs. M Ltd has not been spared from this rivalry.

M Ltd uses Key Performance Indicators (KPIs) to help it measure its efficiency, productivity, and overall success. As a brick factory, tracking the right KPIs enables management to make informed decisions and optimize operations, ensuring sustainable growth and profitability.

To date M Ltd has been using quantitative measures to assess its performance. The new Managing Director of M Ltd is of the view that the Balanced Scorecard and other non-financial performance indicators could be a useful way of measuring performance. The following information relates to Division C:

	2024 Budget	**2024 Actual**	**2023 Actual**
	K'000	K'000	K'000
Sales	10,000	9,500	9,250
Production costs			
– Material	5,000	4,500	4,000
– Labour	3,000	2,500	2,250
– Variable overhead	1,000	900	750
Contribution	1,000	1,600	2,250
Production units	40,000	39,500	46,250

Industry data 2024:

- Average price rise from 2023: 10%
- Average market share: 35 million bricks (versus 2023 32.5 million bricks)
- Market size: 500 million bricks(versus 2023 462.5 million bricks)
- Average industry production cost per brick: K0.21
- Average industry selling price per brick: K0.25
- Average industry contribution sales ratio: 16%

Required:

(a) Assess and illustrate profitability, activity and productivity for Division C. (8 marks)

At the end of the year the manager of Division Q produces the following annual figures for budget and actual:

	Budget	Actual
Units of sales and production	20,000	10,000
Parts received from suppliers	100,000	83,000
Number of washing machines returned by customers	200	127
Substandard parts from suppliers	500	475
Delivery times(days)	10	8
Washing machines rejected by quality control	100	59
Time taken to respond to complaints	12 hours	6 hours

Based on the above figures, Division Q manager makes the claim that the division is meeting its quality and service objectives.

Required:

(b) Using the above data, analyse the figures in any way you think suitable and show by use of this analysis where the Manager is correct and where he/she is mistaken.

(5 marks)

The scenario above refers to 'carbon neutral' in the brick making industry.

(c) (i) Explain what you understand by "carbon neutral" in the context of M Ltd and in general. (1 mark)

(ii) State one (1) example of being carbon neutral and two (2) benefits of M Ltd being carbon neutral. (2 marks)

In the scenario, the Managing Director recommended the introduction of the Balanced Scorecard and other Non-Financial Performance Indicators.

(d) Discuss how the Balanced Scorecard can be used by M Ltd to improve its performance. Ignore the financial perspective because M Ltd is currently using it to measure its performance.

(4 marks)

[Total: 20 marks]

QUESTION FIVE

Minga Industries Ltd (MI Ltd) specializes in high-end consumer electronics. The company has been operating for ten (10) years and has grown steadily. The company currently holds the major market share in the home market. However, it faces increasing competition in the market, changing consumer preferences, and fluctuating economic conditions. The company's leadership is focused on achieving sustainable growth while maintaining profitability.

Company Objectives:

(1) Increase market share in the next three (3) years by expanding into international markets.

(2) Improve operational efficiency by reducing production costs and enhancing product quality.

(3) Enhance customer satisfaction through innovation and superior product support.

Critical Success Factors (CSFs):

(1) Innovation in product development to meet evolving customer needs.

(2) Brand recognition and loyalty in existing markets.

(3) Efficient supply chain management to reduce costs.

(4) Effective marketing and customer engagement in new international markets.

Strategy:

The company has decided to invest heavily in R&D to develop innovative products while expanding its presence in other regions. However, it must also balance these investments with the need for cost-cutting in its operations.

Required:

(a) Assess the current strategic position of Minga Industries Ltd using the Boston Consulting Group (BCG) matrix. (8 marks)

(b) Perform the SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis for the company. (6 marks)

(c) Recommend suitable performance measures at the strategic level that align with the company's objectives. (6 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

CA 3.5 ADVANCED MANAGEMENT ACCOUNTING

SUGGESTED SOLUTIONS

SOLUTION ONE

(a) (i) Relevant quantitative measures will apply to profitability and profitability percentages, cost overruns, estimated future costs and revenues, cash flow measures and how profitable the contract is likely to be, assuming no additional costs and assuming that the overruns of the first half are not repeated in the second. Therefore, the following measures will be relevant:

1.0 Profitability		
	Budget	**Actual**
	K'000	**K'000**
Sales value	50,000	50,000
Costs incurred	(40,000)	(48,000)
Gross profit	10,000	2,000
Interest lost on retention		
K50, 000 x 10% x 10%	-	(500)
Net profit to date	10,000	1,500
Gross profit percentage	20%	4%
Net profit Percentage	20%	3%

Overall profit on the contract, assuming budgeted/estimated costs to complete are met:

	Budget K'000	**Actual K'000**
Sales value	120,000	120,000
Costs incurred to date	40,000	48,500
Estimated costs to complete(24+16+8)	48,000	48,000
	32,000	23,500*

*Assumes that the retention is repaid.

(2 marks)

Assuming all costs are subject to the same excesses:

	Actual K'000
Profit as before	23,500
Materials: 24,000 x 20% (W.1)	(4,800)
Labour: 16,000 x 25%(W.1)	(4,000)
Overhead: 8,000 x 12.5%(W.1)	(1,000)
Interest on retentions: K70, 000(K120 million less K50 million so far realised) x 10% x 10%	(700)
	13,000

Workings: W.1 Over expenditure increases/overruns

Material :	2/10 =	20%
Labour	1.5/6 =	25%
Overheads	0.5/4 =	12.5%

If retentions of 10% of the contract price are not repaid then the contract will make a profit of only K1,000,000 [K1,500,000 less K500,000 retention (K50,000 x10%x10%)].

Looking at these quantitative measures of performance, there appear to have been some rather fundamental errors made in the estimation of this contract; in the materials used and the labour hired to complete the job. Management will seek to apportion the blame if the contract does only break even and seek to learn the lessons of these failures.

2.0 Quality

As well as quantitative measures, qualitative measures will need to be considered. Quality failures have occurred in the type of labour hired, in that they were hired because they were cheap, not because they were sufficiently skilled for the job. This has resulted in poor use of materials and overhead and considerate cost overruns in all cost areas. Quality failures may have occurred, too, in the type of materials used and the supplier selected to supply them. Again, this has resulted in excess costs in usage and waste. Finally, the quality of the final 'product' is poor, as indicated by the 10% retention made by the contracting company. This will only be refunded if no problems arise. The fact of retaining the money suggests that they expect faults to arise, indicating poor workmanship.

(ii) The following could be the reasons of not relaying so much of both the financial and non-financial measures in firm such as S Plc:

Financial measures:

1. Limitations: Focus on short-term results, may not capture long-term value creation.
2. Narrow perspective: May overlook important non-financial aspects, such as customer satisfaction or employee engagement.
3. Manipulation: Financial results can be manipulated through accounting practices or creative finance.

Non-Financial measures:

1. Subjectivity: Non-financial metrics can be subjective and difficult to quantify.
2. Lack of standardization: Different organisations may use different non-financial metrics, making comparisons challenging
3. Difficulty in linking to financial performance: it can be hard to demonstrate a direct link between non-financial metrics and financial outcomes.

However, the balanced approach to both type of measures could be:

1. Combining financial and non-financial measures: using a balanced set of metrics can provide more comprehensive view of performance.
2. Aligning metrics with strategy: ensuring that metrics align with organizational goals and strategy.
3. Regular review and adjustment: periodically reviewing and adjustment metrics to ensure they remain relevant and effective.

The best practices for an effective performance management system could involve the following:

1. Use a balanced scorecard approach so as to incorporate both financial and non-financial metrics.
2. Choose metrics that are relevant to the organization's goals and can be accurately measured.
3. Ensure that metrics are clearly defined and communicated to stakeholders.

By acknowledging the limitations and benefits of both financial and non-financial measures, organisations can develop a more comprehensive performance management system that supports informed decision-making and drives long-term success.

(iii) **Suitable strategies to adopt**

The aim of these strategies will be to avoid any further cost overruns and to minimize cash flow disadvantages to the business. Therefore the following strategies will be relevant.

Materials

The problem with the materials is the number of breakages of slabs and the apparently poor quality provided by suppliers. Steps need to be taken to improve quality and usage:

- Talk to suppliers to sort out exactly what is required in terms of quality of material.
- If current suppliers cannot supply this quality, a new supplier must be sought.
- Talk to the workforce to find out what is going wrong with slabs and use this

Information to draw up revised specifications with suppliers.

- Take time to train the workforce to apply the materials correctly and so avoid wasteful breakages

Measures that will show if these aims are being met:

- Reduced number of breakages.
- Improved morale and productivity of workforce.
- Improved satisfaction of customer with the 'product'.

Apart from reduced breakages, the remainder of the measures will be qualitative and will need very careful monitoring to make sure that the objectives of cost reduction and quality are being met.

Labour

Problems here are lack of skill and experience. These could be solved by bringing in a new workforce with the required skill and experience. If this is not possible due to potential breach of contract damages, the following steps will need to be taken:

- educate and train the workforce for exactly what is required
- introduce close supervision and encouragement to make sure that this is happening
- encourage the workforce to be critical of what they have done; promote the idea of quality in their work.

These objectives can be measured in the following ways:

- Frequent reports from supervisors on what is being achieved in training and quality terms.

- Reductions in breakages, improved morale and productivity.
- Increased satisfaction from the customer.
- More co-operation between the workforce in solving problems and criticizing each other's performance
- reduced overhead expenditure.

Again these are mostly qualitative measures which will require careful monitoring to ensure the goals are being achieved.

Cash management

This problem has arisen from the poor-quality performance in the past leading to the retention of 10% of the sales price. The quality measures put in place above should reduce costs and wastage in some measure and so reduce the drain on cash. One other way to do this would be through asking suppliers to deliver just in time to site and to deliver exactly where the products are required.

This will have the effect of reducing storage time and putting the materials to work immediately. This work-in-progress can be turned into cash more quickly, and postponing further deliverables from suppliers will delay payments out of the bank. This will also avoid inefficient working as inventory on site will not get in the way of the workforce or need moving to other areas.

Measurement of these aims can be via checks on deliveries and making sure they are being delivered just in time and to the right time. If the measures are effective, the cash position should improve and less interest will be paid. Implementation of this quality philosophy will enhance the contract's quality and should then result in payment of retentions to alleviate any other cash flow problems.

(b) **Arguments for using the controllability principle**

In a divisionalised organisation, there may be two aims of the divisional management accounts:

- measuring the economic performance of the division; and
- appraising the performance of the manager.

If a division, or a manager, can be identified with the creation of income or usage of resources,
targets can be established in these and performance measured against them. If only controllable performance measures are considered, then this is likely to be perceived as fair and equitable by divisional management, and should lead to improved motivation to hit targets. This facilitates the delegation of authority to divisional managers, freeing up senior management for strategic planning. Control can be achieved by structuring the financial reporting system to senior management, using the principles of responsibility accounting. In this way, the actual performance of the division is compared against objectives specified as controllable, thereby helping to focus divisional management's attention on those performance variables.

Such a reporting system should also help reduce disputes over the allocation of central group overheads to divisions, since actual performance in these areas would be clearly shown as non-controllable in the divisional accounts.

Finally, the controllability principle is also a useful senior management mechanism for subsequently appraising subordinate manager performances, and would provide a logical basis for bonus calculations and promotion prospects.

In spite of the benefits of applying the controllability principle in evaluating the performance of divisional managers, in practice there are large diversified firms which do not adopt this principle. Some of the reasons for not doing so include:

(i) the importance of divisional managers considering all costs in determining price structure and in comparing performance with competitors.

(ii) to encourage divisions to reduce their demands for group services.

(iii) Loans raised by Head Office on behalf of divisions should be allocated to divisions.

(iv) administrative work such as computer bureau services, payroll, treasury, etc. should be allocated to divisions.

SOLUTION TWO

(a) **Ethical Issues:**

Incentivizing Unethical behaviour:

Short-term financial performance metrics can encourage managers to manipulate figures to meet targets, such as inflating sales figures or deferring necessary expenses to later periods (e.g., cutting research and development costs or neglecting maintenance). These actions may mislead stakeholders about the company's true financial health.

Overlooking Long-Term Sustainability:

Focusing only on short-term financial outcomes can undermine the long-term success of the company. It may cause managers to prioritize immediate results over sustainable growth, leading to poor decision-making, such as sacrificing product quality, customer satisfaction, or employee welfare, which can damage the company's reputation and long-term profitability.

Potential for Conflicts of Interest:

Managers might prioritize personal incentives over the best interests of the company if they feel their bonuses or compensation are tied to short-term results. This could lead to short-sighted decisions that may benefit individual managers in the short run but harm the company in the long run.

Pressure on Employees:

Unrealistically high short-term performance targets could create an environment of excessive pressure, potentially leading to burnout, unethical decision-making, or even fraudulent activities to meet targets.

(b) **Recommendations for Addressing Ethical Issues:**

1. **Balanced Performance Measures:** The board should develop a balanced set of performance measures that not only consider financial metrics but also emphasize non-financial factors like customer satisfaction, employee well-being, product quality, and long-term sustainability. The Balanced Scorecard approach could be helpful here, incorporating financial, customer, internal process, and learning & growth perspectives.

2. **Integrating Long-Term Goals:** Incorporating long-term performance measures, such as strategic objectives, sustainability goals, and innovation. These measures should be integrated with short-term financial targets to encourage a holistic approach to performance management. For instance, the company could set performance goals that include achieving sustainable revenue growth, maintaining high levels of customer satisfaction, and improving employee welfare, alongside short-term profitability targets.

3. **Ensuring Transparency and Accountability:** Clearly defining the ethical standards and expectations for managers and communicating these to all

employees. An ethics-focused culture should be fostered through regular ethics training and awareness programs. Implementation of strong internal controls and auditing procedures to monitor performance and ensure that all measures are being met ethically.

4. **Reviewing and Adjusting Targets Regularly:** Performance targets should be realistic and periodically reviewed to ensure they are not overly aggressive or misaligned with the company's overall objectives. The company should consider using a mix of both outcome-based and behaviour-based performance measures to ensure managers focus on achieving sustainable results through ethical means.

5. **Incentivizing Ethical Behaviour:** In addition to financial rewards, consider implementing non-financial incentives, such as recognition for ethical leadership, innovation, and long-term contributions to company growth. Rewarding ethical behaviour ensures that managers do not just focus on meeting numerical targets but also contribute to building a culture of integrity.

(c) **Strategic management accountant**

A strategic management accountant plays a crucial role in helping an organization align its financial strategy with its overall business goals. Rather than just focusing on traditional accounting tasks like budgeting or reporting, his/her main role is to provide insights that inform strategic decision-making. Here's a breakdown of their key responsibilities:

1. **Strategic Planning Support**: They help the company identify long-term goals and assist in formulating strategies to achieve them. This includes providing financial forecasts, modeling different scenarios, and evaluating potential investments.
2. **Performance Management:** Strategic management accountants analyze business performance, both financial and non-financial, using metrics like key performance indicators (KPIs) and balanced scorecards. They track progress toward strategic goals and recommend adjustments when necessary.
3. **Cost Management and Efficiency:** They help identify areas for cost reduction, optimization, and resource allocation, ensuring the organization spends wisely and efficiently. This includes analyzing production costs, overheads, and supply chain expenses.
4. **Decision Support:** These accountants provide actionable insights to support decision-making, whether it is launching a new product, entering a new market, or considering mergers and acquisitions. They analyze the financial impact of different options and advise senior management.
5. **Risk Management:** They assess financial and operational risks associated with business strategies and help design risk management frameworks to minimize potential negative outcomes.
6. **Internal Controls and Compliance:** While they focus on strategy, they also ensure that the organization adheres to financial regulations and maintains proper internal controls, ensuring accuracy and accountability.

In summary, a strategic management accountant bridges the gap between finance and business strategy, ensuring that financial insights help drive long-term success, profitability, and growth. His/her role is not just about managing costs but actively contributing to shaping and executing the company's strategy.

SOLUTION THREE

(a)

To : CK Management

From :CK Consultant

Date: xx/xx/xx

RE: Report highlighting mistakes which could have contributed to the change management failure and recommend how CK should implement the suggested changes.

Introduction

This report will be highlighting mistakes which could have contributed to the change management failure of CK company and will make recommendations on how CK should implement the suggested changes in order to reduce implementation failure of an organization.

Mistakes

Introduction of change appears to be hastily conducted such that he is taking by surprise his management team as such it is expected that they will distance from the change process. The CEO needs to understand the culture first and follow through the model of change by Unfreezing existing practices, attitudes and motivations of the team to see the need for change.

The CEO did not undertake consultation to change management process, as every successful change management there must be serious and all involving consultations both horizontal and vertical consultation which the new CEO completely ignored or does not understand. The CEO has already decided what need to happen and is just giving announcement and deadline for change activities

The CEO seems to think that he can introduce change alone without management input which is not correct because changes in an organization need a team work and collaboration.

It is not clear if the CEO has taken into account the needed resources such as cash and time to do all these changes and he has given two months to have these changes done but is this really adequate.

Risk of loss of employment by top managers who should be supporting the programme of change but the CEO is threatening their jobs and he wants them to re apply if they want to continue.

Recommendation on how to implement the change

Withdraw temporarily the intended changes in order to create time for selling the idea of the change properly so that he can start again.

Since the damage has already created, it will not be easy for CEO to just re introduce the change again, just like in any change there is always two groups opposing to change and

those for the change. The CEO should try and see if he can strength the voice of those who agree to change.

The CEO should call for a meeting where he will explain the need to change and how these changes will benefit every one at the end of the program.

This may come with the need for assurance that no one will lose employment in this process especially top management of the CK.

CK will need to do more consultations and more of information gathering. The CEO may need to improve on how he communicates his ideas and lobby for buying in of ideas from all employees.

Signed: CK consultant

b) **Forces of Change- Internal**

- Forceful new CEO who does not consult
- Poor operational Performance
- High costs of production
- Low productivity that will lead to loss of business and reduced profit

Forces of Change- External

- Customer spreading in all provinces
- Customer service efficiences

Forces resisting Changes - Internal

- Threat of job losses by department heads

Forces resisting Change- External

- Trade union supporting employees to resist change

SOLUTION FOUR

(a) Profitability

Looking at the budget and actual figures for 2024, the company is much more profitable than budget. This is in spite of the fall in sales and the level of activity against budget. The workforce has been more productive and more efficient in producing a quantity of bricks very close to the budget but at a much lower cost (K0.20 actual vs. K0.225 budget). Looking purely at this data, the company seems very profitable indeed.

However, when compared to the previous year, the company seems to have slipped backwards in profitability terms. The company produced many more bricks last year at an average unit cost of only K0.1514. Productivity and efficiency have declined sharply in comparison to last year.

Comparing the results to industry data, the average selling price is only K0.24 against an industry average of K0.25. This suggests that the company has scope to expand its market further due to its low price and lower than average production costs (K0.20 v. industry average of K0.21). However, the company does seem to have increased its selling price quite sharply. Last year's selling price of K0.20 has risen by twice the industry average of 10%, rising from K0.20 to K0. 24 and, although below the industry average selling price, this could have accounted for the fall in sales as customers changed to cheaper products. This rise has also been forced upon M Ltd by the sharp rise in production costs. But it has a contribution/sales ratio of 16.84%, again above the industry average.

From these different perspectives, then, the profitability of this company has several different aspects, depending upon which figures are looked at.

Activity

Activity compared to budget is slightly down and it is sharply down compared to last year due to the pricing aspect noted above. Compared to budget, the fall does not appear too significant, but compared to last year, the fall may be somewhat worrying.

Based on the industry data, the company's activity is above the industry average this year, being 7.9% (39.5/500) of the total market, compared to the industry average of 7% (35/500). Last year, however, the company had 10% of the market compared to an industry average of 7%. This represents a severe blow to any aim the company may have of increasing its market share at the expense of its competitors.

Again, based on this year's figures alone, activity levels seem reasonable. Compared to last year, there are worrying downward trends.

Productivity

This will be shown in the variances between budgeted productivity for labour and actual; and between the two years' actual results. Using the information given, the following would be the expected and actual costs per brick produced:

			2024		2023
	Budget K		**Actual K**		**Actual K**
Material per brick	0.1250		0.1139		0.865
Labour per brick	0.750		0.633		0.486
Variable overhead per brick	0.250		0.228		0.162
	0.2250		0.20		0.1513

Comparing the 2024 actual and budget figures, it is clear that the workforce has been more productive than budgeted and they have been more efficient in the use of materials and variable overheads than budgeted. This unexpected productivity has reduced unit costs by 11% and has benefited profitability, as was seen above.

Compared to 2023's actual result, even allowing for a 10% rise in costs and selling prices, productivity has declined sharply and, again, presents a worrying trend.

Productivity, too, can be looked at from two angles and different results produced, depending on which figures are looked at.

(b)

- The manager is correct in so far as numbers of complaints and so forth are below budget.
- Actual percentage ratios for quality and service performance measures to related figures are:

	Budget	Actual
	%	%
Complaints/sales*	1.00	1.27
Substandard parts/parts from suppliers**	0.50	0.57
Rejected machine/sales***	0.50	0.59

*(200/20,000) x 100% = 1%; 127/10,000 x 100%= 1.27%

**500/100,000 x 100% = 0.50%; 475/83,000 x10% = 0.57%

***10020,000 x 100% = 0.50%; 59/10,000 x10% = 0.59%

On the basis of these calculations, quality performance measures are behind budget and action will need to be taken to reduce these discrepancies in order to produce the required quality measures.

A further point arises with respect to the parts provided by suppliers. For production of 15,000 washing machines it might be expected that the company would use only 75,000 parts in production. The fact that 83,000 parts have been used suggests that many parts may not have been up to standard and were broken or damaged by the workforce during construction of the machines. This again suggests that the parts provided by suppliers are not up to the quality standard required by the company. Service standards cannot be analysed by the same methods because service is totally separate from production and performance here cannot be compared to sales or parts purchased. From the figures given, it appears that delivery times and time taken to answer complaints are well within target times. However, it can be said that the factory is not operating at full capacity, and once this is achieved these measures will need to be looked at again to see if the targets are still being met or whether the ability to meet targets here was merely due to slack in the production and selling departments.

(c) Carbon neutral means that the amount of carbon released into the atmosphere is equal to the amount removed. This is also known as net zero carbon emissions. For M Ltd to be carbon neutral, **any emissions it creates must be offset by emissions it reduces elsewhere**.

Carbon neutrality can be achieved in general by:

- **Reducing emissions**: Use less energy in making fired clay bricks, drive less, and shop responsibly.
- **Removing carbon**: Use carbon sinks like forests and plants, or use technologies that capture carbon dioxide from the air.
- **Offsetting emissions**: by investing in clean energy projects, or purchase carbon offsets.

M Ltd can specifically be carbon neutral by considering electricity generation from biomass, solar, and wind. It can also be carbon neutral by planting trees wherever it digs gravel from.

By re-evaluating M Ltd's strategy and implementing a more carbon neutral plan, it may benefit as follows:

- Business reputation. Adopting carbon neutral practices may enhance its reputation as a business.
- Reduced costs.
- Attracting investment.
- Security and resilience.
- Competitive edge.

(d) **How Balanced Scorecard Can Be Used By M Ltd To Improve Its Performance.**

The Balanced Scorecard (BSc) seeks to integrate financial and non-financial measures and assist in clarifying, communicating and managing strategy. The four perspectives of the BSc are the financial, customer, internal business and innovation and learning. The BSc clearly links the operational perspectives to financial perspective such that a change in the operational ones can be seen to have an impact on the financial perspective.

In the **customer perspective**, M Ltd will identify customer and market segments in which the construction and service divisions will compete. They may measure customer complaints and repeat business to gauge customer satisfaction.

In the **internal business processes perspective**, M Ltd will identify the critical internal processes in which it will excel in implementing its strategy. Typical measures would include percentage of sales from new products, sales growth in bricks relative to industry and speed of response to customer demands.
In the **learning and growth perspective**, focuses on assessing M Ltd's ability to satisfy, develop and motivate its employees. Key measures here assess employee retention, productivity and satisfaction in Divisions C and Q.

The effect of making improvements in these three areas is that profitability, cash flow, and other measures in the financial perspective that M Ltd is using currently should improve.

SOLUTION FIVE

(a) **BCG Matrix Analysis:**

- **Stars (High Market Share, High Growth)**:
    - Minga Ltd's flagship product is performing well in established markets but needs innovation to maintain growth. The company should continue investing in R&D to enhance product features, possibly by incorporating AI and smart technology.
- **Question Marks (Low Market Share, High Growth)**:
    - Minga Ltd's entry into the other regional markets can be considered a question mark. These regions represent significant growth potential, but the company has a low market share there. Significant marketing and strategic partnerships would be required to establish the brand and boost market share.
- **Cash Cows (High Market Share, Low Growth)**:
    - The company's established electronics line in the home market is a cash cow. Although this product line is no longer growing rapidly, it generates consistent revenue that can be reinvested into high-growth areas like international markets and innovation.
- **Dogs (Low Market Share, Low Growth)**:
    - Minga Ltd's older product lines that no longer appeal to consumers could fall into the "Dogs" category. These products should be reviewed for discontinuation or cost-effective ways to maintain their market presence.

(b) **SWOT Analysis:**

- **Strengths**:
    - Established brand with a loyal customer base.
    - Strong in R&D and product innovation.
    - Robust supply chain and manufacturing capabilities.
- **Weaknesses**:
    - Limited presence in international markets.
    - Dependence on a few high-performing products.
    - Vulnerable to economic downturns, which can affect consumer spending.
- **Opportunities**:
    - Growing demand for consumer electronics in other regions.

- Potential for partnerships with local firms to penetrate international markets.
- Technological advancements in artificial intelligence, which can be incorporated into new products.

- **Threats**:
  - Intense competition from global giants like Apple, Samsung, and emerging local brands.
  - Currency fluctuations affecting international pricing.
  - Rapid technological changes, making products obsolete quickly.

(c) **Performance Measures at a Strategic Level:**

- **Market Share Growth**: Track Minga Ltd's market share in other regional markets. Its success could be measured by an annual percentage increase in market share.
- **Return on Investment (ROI) from R&D**: Measure the profitability of new products launched, comparing development costs against revenue generated.
- **Customer Satisfaction/Net Promoter Score (NPS)**: Assess customer loyalty and satisfaction through regular surveys, especially after launching new products or entering new markets.
- **Operational Efficiency**: Measure the reduction in production costs or improvement in supply chain effectiveness (e.g., cost per unit produced or average delivery time).
- **Revenue Growth from International Markets**: Set a target for revenue generation from international markets.

By applying the BCG Matrix to the company's product portfolio, alongside conducting a SWOT analysis, you can strategically align Minga Ltd's objectives with performance measures that will guide them in achieving sustainable growth while mitigating risks.

END OF SUGGESTED SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA 3.6: ADVANCED FINANCIAL MANAGEMENT

FRIDAY 12 SEPTEMBER 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

TAL Plc, a manufacturing company was established in the 1970s as a small family owned business. Over the years, the company has experienced rapid growth expanding to many parts of the country. In 2006, it applied and successfully obtained a listing on the first tier of the Lusaka Stock Exchange (LuSE). Currently, the company is a major manufacturer of consumer products and has 60% of the local share market. Due to the recent decline in electricity supply in the country, the company's newly appointed Board is considering diversifying into the energy industry by setting up a solar plant to supply solar appliances.

The proposed project is initially for a ten (10) year investment period with an option of expanding for further years which would require significant investment. The new Board believes the investment will increase the shareholders' wealth which should be the primary objective as opposed to the current objective of increasing dividends each year. However, management do not agree and think that other new objectives that should be considered are target profits after tax and return on investment. TAL Plc has no non-financial objectives.

The following financial projections relate to the proposed investment:

Table 1: Sales and Production Costs Projections

Period(Years)	**1**	**2**	**3**	**4**	**5-10**
Annual Sales (Units'000)	600	750	850	980	1,000
Selling price per unit(K'000)	5	6	6.5	7	7.5
Variable cost per unit(K'000)	3	3.5	4.1	4.7	5
Annual fixed costs (K'million)	1,110	1,110	1,350	1,350	1,400

The investment under consideration requires an immediate initial investment cost amounting to K1,500 million. The initial investment in working capital is K150 million which is expected to increase by 5% per year.

The average gearing level for the energy industry is 48% debt and equity beta of 1.2. However, the board proposes to finance the investment with 40% debt and 60% equity. The bond will be issued at a nominal value of K1,000 with coupon rate of 12% quoted at K950 ex int. The bond is redeemable in 10 years' time at a premium of 10%. TAL Plc has 20 million shares in issue trading at K12.5 each.

The ten (10) year Government debt yield is currently estimated at 7.5% and the market risk premium at 8%. The corporate tax is 25% per year.

Required:

(a) As a financial consultant, write a report to the board of TAL Plc addressing the following:

(i) Estimate the minimum expected rate of return by the investors from the proposed investment in the solar plant. Round off to the nearest whole number. (14 marks)

(ii) Evaluate the financial viability of the proposed investment using the net present value (NPV) method. (12 marks)

(iii) Evaluate the financial viability of the proposed investment using the modified internal rate of return (MIRR). (6 marks)

(b) Assess the suitability of TAL's current objective and of the new objectives being suggested by both the new Board and management. (8 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt any THREE (3) questions.

QUESTION TWO

A Zambian company, Safix Ltd imports a significant amount of its raw materials from South Africa and is invoiced in the South African Rand (ZAR).

It is forecasting the following imports from its foreign supplier:

In one months' time	ZAR 10 million
In two months' time	ZAR 17.5 million
In three months' time	ZAR 16 million

ACCESS Bank is currently quoting ZMW/ZAR forward rates as follows:

	Bid	**Offer**
Spot	1.8252	1.8262
One month	1.8200	1.8220
Two months	1.8178	1.8199
Three months	1.8172	1.8180

Required:

(a) If Safix Ltd decided to use the forward market to cover its foreign exchange (FX) exposure:

(i) Comment on the bank's outlook of the Zambian Kwacha over the next three months, relative to the South African Rand, given the forward rates quoted by ACCESS Bank. (1 mark)

(ii) Determine how much cash in ZMW the company will need to pay for its imports, over the next three months using a forward contract. (3 marks)

(iii) Evaluate the above strategy, supposing that in three months' time, the spot rate ZMW/ZAR has moved to 1.93. (2 marks)

(b) Safix Ltd is forecasting a payment of ZAR 10 million in three months' time. It decides to use options to cover the exposure and is quoted a premium of 2.5% of the ZAR notional amount for a three-month option contract with a strike price at the three months forward rate.

(i) Determine the cost of the option strategy, and what the company's breakeven foreign exchange rate will be for the strategy to work? (4 marks)

(ii) Explain what Safix Ltd will do, if in three months' time the ZMW/ZAR exchange rate is:

(1) 1.9210/1.9220 (2 marks)

(2) 1.7516/1.7526 (2 marks)

The company's three-month borrowing rate is 2%, based on a calendar year of 12 months.

(c) To resolve the high levels of debt among corporations, some financial experts believe that Islamic financing schemes might be a more sustainable source of financing going forward.

Required:

Explain three (3) principles of Islamic finance. (6 marks)

[Total: 20 Marks]

QUESTION THREE

(a) The Management of Speciality Foods Ltd (SPL) is considering two payment options for the purchase of a rice processing plant:

Option 1: Cash purchase option

This option requires immediate payment of the full price of the plant. If SPL chooses this option, it will pay the cash price of K800,379 today. The company plans to raise the required amount by borrowing from a bank. INDO Bank Zambia has offered to lend the cash price to SPL at an annual interest rate of 15% with monthly compounding. The loan interest, and other charges are to be amortised by even instalments of K27,952.26 each made at the end of each month over the next three years.

Option 2: Credit purchase plan

Under this option, the vendor requires an immediate down payment followed by a series of even payments. If SPL chooses this option, it will be required to pay K50,000 today. This will be followed by the payment of K116,100 at the end of each quarter over the next two years. The interest rate implicit in this credit purchase plan is 20% per annum.

Required:

(i) Calculate the present value of all the payments under the cash purchase option. (5 marks)

(ii) Compute the present value of all the payments under the credit purchase option. (4 marks)

(iii) Which of the two options, would you recommend to the company? (1 mark)

Note: Present Value of Annuity $(PVA) = PMT\ x \left[\frac{1-\left(1+\frac{r}{m}\right)^{-(n*m)}}{\frac{r}{m}}\right]$

(b) (i) Explain the term *intrinsic value* of an option. (1 mark)

(ii) SPL bought USD/ZMW call options from a derivatives exchange.

The table below shows the various spot rates and strike prices for the various tenors.

Month	**Spot Rate USD/ZMW**	**Exercise Rate/Price USD/ZMW**
1	5.1	4.8
2	5.3	5.0
3	5.5	5.4
4	5.8	5.8
5	5.7	6.0
6	6.0	6.4

Required:

Determine the intrinsic value of the option for each trading month and clearly indicate the months in which the option is in-the-money, at-the-money or out-of-the-money. (5 marks)

(c) Increased risk of inflation in the recent past, has forced the bank of Zambia to tighten prudential requirements, which have reduced the capacity by Financial Institutions to create credit, reducing liquidity in the banking sector.

Required:

Explain Two (2) advantages of currency forwards over currency futures contract. (4 marks)

[Total: 20 Marks]

QUESTION FOUR

MERI Plc a listed company on the Lusaka Securities Exchange (LuSE) is specialised in scrap metal trading. The company has grown over the years due to the demand for scrap metals by the neighboring countries. The company capital structure comprises of ordinary stock and bonds. MERI Plc has in issue two types of bonds as follows:

Bond A: 12% bonds issued at par value of K1,000, redeemable in 5 years' time at a premium of 10%. The investors' required rate of return is 15%.

Bond B: 12% bonds issued at a par value of K1,000 redeemable in 10 years' time at a premium of 10%. The market value of debt is currently K998.10.

Ignore taxation.

Required:

(a) Compute the market value of bond A and redemption yield for bond B. (7 marks)

(b) Calculate the new market value for both bond A and B if the gross redemption yield were to change to 17.51% and the percentage (%) change in the market values of each bond. (8 marks)

Note: You are encouraged to use the annuity formula

(c) Explain the relationship between the bond price and the redemption yield.

(5 marks)

[Total: 20 Marks]

QUESTION FIVE

Multinational corporations are the global goliaths of modern times, accounting for huge portions of world production, employment, investment, trade, and Research & Development. They have business operations in at least one country other than the home country and generate revenue beyond their borders. However, attaining and maintaining such a status does not come without challenges. Multinational corporations face a lot of challenges and due to the nature of their business operations; they are exposed to different types of risk, especially foreign currency risk.

Multinationals have fundamentally shaped the flow of capital, goods, and services in a world that they helped connect, perhaps more than any Government, during the centuries-long process of globalization. Multinationals rely heavily for both long-term and short-term funds on the financial and currency markets. To manage cash (funds) and currency efficiently, many large companies have set up a separate treasury function. The treasury function may be set-up as a profit centre or cost centre.

Required:

(a) Discuss the various challenges facing multinational companies due to their global operations. (8 marks)

(b) Explain the economic risk exposure and Five (5) reasons it might be difficult to quantify and hedge. (6 marks)

(c) Discuss Three (3) factors that could be considered when setting up a treasury function as a profit centre. (6 marks)

[Total: 20 Marks]

END OF PAPER

Formulae

Modigliani and Miller Proposition 2 (with tax)

$$k_e = k_e^i + (1 - T)(k_e^i - k_d)\frac{V_d}{V_e}$$

Two asset portfolio

$$s_p = \sqrt{w_a^2 s_a^2 + w_b^2 s_b^2 + 2 w_a w_b r_{ab} s_a s_b}$$

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.

3.6 ADVANCED FINANCIAL MANAGEMENT

SUGGESTED SOLUTIONS

SOLUTION ONE

(a) (i) Minimum expected rate of return
Cost of equity= Rf + β(Rm – Rf)

Ba = Be x Ve/Ve+Vd (1-t)
Ba = 1.2 x 0.52/0.52+ (0.48) (1-0.25)
Ba =**0.71** (2 marks)

0.71=Be x 0.6/0.6+0.4 (1-0.25)
Be=**1.07** (2 marks)

Cost of equity = 7.5% + 1.07 (8%)
= **16.06%** (2 marks)

Cost of debt

Period	Description	Cash flow	Dis@12%	PV	Dis@8%	PV
0	Mvd	(950)	1.000	(950)	1.000	(950.00)
1 to 10	Int (1-t)	90	5.65	508.5	6.71	603.90
10	Redeem	1100	0.322	354.2	0.463	509.30
	NPV			(87.3)		163.20
	IRR = 8% + 163.20/163.2+87.3 (12%-8%)					4marks
	Cost of debt=**10.61%** (2 marks)					

WACC = (16.06% x 0.6) + (10.61% x 0.4) = 13.88% round off 14% (2 marks)

(ii) NPV

Year	0	1	2	3	4	5 to 10
Demand	-	600,000	750,000	850,000	980,000	1,000,000
	K'm	K'm	K'm	K'm	K'm	K'm
Sales	-	3,000	4,500	5,525	6,860	7,500
Variable costs	-	(1,800)	(2,625)	(3,485)	(4,606)	(5,000)
Fixed Costs	-	(1,110)	(1,110)	(1,350)	(1,350)	(1,400)
Taxable Cash flows	-	90	765	690	904	1,100
Tax@25%	-	(22.50)	(191.25)	(172.50)	(226.00)	(275.00)
Working capital	(150.00)	(7.5)	(7.9)	(8.3)	(8.7)	182.33
Investment cost	(1,500.00)	-	-	-	-	-
Net cash flow	(1,650.00)	60.00	565.88	509.23	669.32	1,007.33
Discount@14%	1.000	0.877	0.769	0.675	0.592	1.783

Present Values	**(1650)**	**52.62**	**435.16**	**343.73**	**396.24**	**1,796.06**
NPV	**1,373.81**					

(iii) MIRR

PVs of Return Phase 3023.81
PVs of Investment Phase 1,650.00

MIRR= $\sqrt[10]{\frac{3,023.81}{1,650}}$ X (1.14) - 1 = 21%

The MIRR of 21% is above the WACC of 14%, which gives a positive NPV, making the project viable and acceptable.

Workings **W 1: Working capital**						
Working capital	150	158	165	174	182	191
Incremental		-7.5	-7.9	-8.3	-8.7	-9.1
W2: Annuity factor						
Annuity factor						
1 - 10 years	5.216					
1- 5 years	3.433					
	1.783					

W3: Sales revenue

Years	1	2	3	4	5 – 10
Sales units	600	750	850	980	1,000
Selling price	K5	K6	K6.5	K7	K7.5
Sales revenue	3,000	4,500	5,525	6,860	7,500

W4: Variable costs

Years	1	2	3	4	5
Production units	600	750	850	980	1,000
Variable cost per unit	K3	K3.5	K4.1	K4.7	K5
Variable costs	1,800	2,625	3,485	4,605	5,000

(b)

Maximisation of shareholder wealth is the theoretically ideal corporate objective. However, most organisations now recognise that having this as their sole objective is unrealistic. Whilst there is still the philosophy that shareholders' wealth should be improved as much as possible, this is usually within the constraints of other objectives, such as legal obligations relating to the environment, ethical considerations (not using 'sweat-shop' labour for example) and health and safety issues.

TAL Plc has the additional problem of trying to value shareholder wealth. It is not listed on the stock exchange and thus has no quoted share price set by market forces. If there are problems valuing wealth, how can the entity determine how to maximise it?
Increasing dividends v maximizing shareholder wealth

The objective of increasing dividends each year does not necessarily support the maximisation of shareholder wealth. If there are profitable investments available that would increase future wealth, then the entity should ideally be using its funds to finance such investments. By increasing dividends each year, the entity is restricting the funds available for profitable investments and thus its ability to improve shareholder wealth. Most organisations have a target payout ratio (dividends as a percentage of profit available to shareholders) which means that dividends will move in relation to fluctuations in profit. This makes more sense than a situation where dividends are increasing whilst profits are actually falling!

Return on Investment (ROI)

Some of the directors have suggested accounting ratios such as Return on Investment (ROI) as more suitable objectives. One of the main benefits of such accounting ratios is that they are easy to understand and are comparable across time and between other similar entities in the same industry. However, there are several issues with using accounting ratios as objectives, including:

(i) The numbers are easy to manipulate, even when governed by accounting standards.
(ii) The ratios are based on historic numbers rather than future cash flows, which can cause problems with comparisons if the entity is about to undergo, or has just undergone, a substantial change in structure.

(iii) Lack of consideration for non-financial objectives.

Target profit after tax is another objective being considered. As with accounting ratios, profit figures are easy to understand and determining whether the target has been achieved is a straightforward comparison exercise. However, the problem with such a measure is that taxation policies are beyond the control of individual entities. Changes in such policies render comparisons between years useless and time-consuming (and potentially inaccurate), unless a re-statement of figures takes places.

Given the above evaluation it would seem more sensible for TAL Plc to have a range of complementary objectives rather than focusing on just one. It may be worthwhile consulting

the shareholders themselves to determine what they are trying to get out of their involvement with TAL Plc. From the results of this consultation the directors may be able to come up with suitable objectives for the entity that meet the needs of the majority stakeholders.

SOLUTION TWO

(a) Forward Contract

(i) The bank's outlook of the Zambian kwacha over three months, given that the FX forward rates for the South African Rand are quoted at a premium relative to the Zambian Kwacha, implies that the kwacha is expected to weaken.

(ii) Safix Ltd is selling the Zambian Kwacha (ZMW) and buying the South African Rand (ZAR), and so must take the offer price. That is the price at which the bank is selling the ZAR and buying ZMW.

The following ZMW will have to be paid:

	K'000
R10 m x 1.8220 =	18,220
R17.5 m x 1.8199 =	31, 848.25
R16 m x 1.8180 =	29,088

iii) Strategy Evaluation

If in three months the ZAR strengthens against the ZMW, then the forward contract strategy would have been successful, since without the forward FX contract the importer would have had to pay 16, 000, 000 x 1.93 = K30, 880,000 for its raw material imports.

(b) Foreign exchange options

(i) The cost of the premium in Rand is R250,000. Additionally, the company will have to pay the borrowing costs of financing the premium.

The costs of the option strategy will therefore be:

Purchase cost	R 10,000,000
Premium	250,000
Borrowing costs (0.25 m x 0.02 x 3/12	1,250
Total Cost	**10,251,250**

For the option strategy to work the rand rate needs to weaken to a level the premium and borrowing costs are re – couped. The three – month forward rate is 1.8172/1.8180. If the option is not taken out, but the importer has covered itself on the forward market, then the ZMW payment for the ZAR imports would be:

R10 m x 1.8180= K18, 180,000

The break - even rate is therefore:

18,180,000/10,251,250 = 1.7734

If the rand spot rate (ZAR) weakens against the kwacha (ZMW) to 1.7734, the company will be in exactly in the same economic position as if it had taken out a straightforward cover.

(ii) If the option strategy is adopted, then:

(1) If the ZMW/ZAR exchange rate moves to 1.9210/1.9220, the option would be exercised and the required rands (ZAR) purchased at the option rate of 1.8180.

(2) If the ZMW/ZAR exchange rate moves to 1.7516/1.7526, the option will not be exercised as the rands (ZAR) will be purchased on the spot market.

(C) The main principles of Islamic finance include:

- **Wealth** must be generated from legitimate trade and asset-based investment (the use of money for the purposes of making money is expressly forbidden)
- **Investment** should have a social and an ethical benefit to wider society beyond pure return
- **Risk** should be shared
- Harmful activities (**haram**) should be avoided

SOLUTION THREE

(a)

(i) PV of the payments under the cash purchase option

The payments SPL will make under the cash purchase option are effectively the payments under the loan arrangement, which form an ordinary annuity:

$$PVA = PMT\ x \left[\frac{1 - \left(1 + \frac{r}{m}\right)^{-(n*m)}}{\frac{r}{m}} \right]$$

Even payment, PMT = 27,952.26

Annual interest, i = 15%

Frequency, m = 12

Term (in years), t = 3

Number of periods, n = 3 x 12 = 36

$PVA = 27{,}952.26 \left[\frac{1 - \left(1 + \frac{0.15}{12}\right)^{-(36)}}{\frac{0.15}{12}} \right]$ = 27,952.26 x 28.84726737 = 806,346.318

(ii) PV of all the payments under the credit purchase option

PV of payments = Down payment + PV of instalments (which is an ordinary annuity)

Down payment = 50,000

$$PVA = PMT\ x \left[\frac{1 - \left(1 + \frac{r}{m}\right)^{-(n*m)}}{\frac{r}{m}} \right]$$

Even payment, PMT = 116,100

Annual interest, i = 20%

Frequency, m = 4

Term (in years), t = 2

Number of periods, n = 2 x 4 = 8

$$PVA = 116{,}100 \left[\frac{1-\left(1+\frac{0.20}{4}\right)^{-(8)}}{\frac{0.20}{4}} \right]$$ = 116,100 x 6.463212759 = <u>750,379.00</u>

PV of payments = 50,000 + 750,379 = <u>K800,379</u>

(iii) <u>Recommended option</u>
The recommended option is the credit purchase plan as the PV of payments or outflows is lower.

(b)
(i) **Intrinsic value** in an option is explained as the positive value or gain if an option is exercised today. Technically, the option will be considered to be in the money. An option has an intrinsic value when it is in-the-money.

(ii)

Month	Spot Rate USD/K	Exercise Rate/Price USD/K	Difference (Spot Rate & Strike rate)	Comments/ Interpretation
1	5.1	4.8	0.3	In-the-money
2	5.3	5.0	0.3	In-the-money
3	5.5	5.4	0.1	In-the-money
4	5.8	5.8	0	At-the-money
5	5.7	6	(0.3)	Out-of-the-money
6	6.0	6.4	(0.4)	Out-of-the-money

SPL was in the money for 1 to month 3, at the money in month 4, and out of the money in month 5 and 6.

(c)

The advantages of hedging currency risk exposure with currency forward contracts in comparison to currency futures contracts include the following:

Under a forward arrangement, can arrange to trade the exact quantity of the foreign currency to achieve a perfect hedge.

With futures contracts, however, the contract size cannot be tailored to the precise requirements of. In some cases, the company may have to buy more or fewer futures contracts than necessary, resulting in hedge inefficiency.

Forward contracts would allow for inclusion a contract maturity date that coincides with the maturity of its underlying currency exposure. In the case of futures contracts, the contract

maturity date cannot be tailored to synchronise with the maturity date of the underlying exposure.

Hedging with a forward contract presents a guaranteed outcome as the forward exchange rate is locked when the contract is initiated. Basis risk is inherent in hedging with futures contracts. For futures contracts, there is the risk that the futures price may move by a different amount from the price of the underlying asset.

Unlike futures contacts, taking a position in a forward contract does not require margin deposits. Thus, a company can invest the funds that otherwise would be locked with a futures contract clearing house to meet margin requirements.

SOLUTION FOUR

(a) Market value of bond A

Year	Description	Cash flow	Dis@15%	PV
1 to 5	Interest	120	3.352	402.24
5	Redemption	1100	0.497	546.70
	Market value			**948.94**

Redemption yield of bond B

Year	Description	Cash flow	Dis@15%	PV	Dis@10%	PV
0	Mvd	-998.1	1	-998.1	1	-998.1
1 to 10	Interest	120	5.019	602.28	6.145	737.4
10	Redemption	1100	0.247	271.7	0.386	424.6
	NPV			**-124.12**		**163.9**

IRR= 10%+(163.9/163.9+124.12 (15%-10%)

IRR=12.85%%

Redemption yield = 12.85%%

(b) Change in market value

Bond A

Year	Description	Cash flow	Dis@17.51%	PV
1 to 5	Interest	120	3.162	379.44
5	Redemption	1100	0.446	490.60
	Market value			**870.04**
Fall in value (948.94-870.04/948.94) x 100%				**8.31%**

Bond B

Year	Description	Cash flow	Dis@17.51%	PV
1 to 10	Interest	120	4.573	548.76
10	Redemption	1100	0.199	218.9
	NPV			**767.66**

Fall in value (998.1-767.66/998.1) x100%= **23.09%**

(c) The relationship between bond price and redemption yield is an inverse one. When the price of a bond increases, its redemption yield decreases, and vice versa. This is because the redemption yield, also known as yield to maturity (YTM), takes into account the bond's current market price, its coupon payments, and its face value at maturity. The simple way to understand this is:

Bond Price Up, Yield Down: If investors are willing to pay more for a bond, it means they are accepting a lower yield because the fixed coupon payments represent a smaller percentage of the higher price.

Bond Price Down, Yield Up: Conversely, if the bond price falls, the yield increases because the fixed coupon payments represent a larger percentage of the lower price.

This inverse relationship is fundamental to bond investing and helps investors understand how changes in market conditions can affect their bond investments.

SOLUTION FIVE

(a) Multinational companies face a variety of challenges due to their global operations. Here are some of the key challenges:

(i) **Cultural Differences**: Navigating diverse cultural norms and practices can be challenging. For example, what works in one country might not be effective in another due to different cultural expectations.

(ii) **Regulatory Compliance**: Multinationals must comply with various laws and regulations in different countries, which can be complex and time-consuming.

(iii) **Geopolitical Risks**: Political instability, trade tensions, and changes in government policies can impact operations and profitability.

(iv) **Currency Fluctuations**: Exchange rate volatility can affect financial performance and complicate budgeting and financial planning.

(v) **Supply Chain Management**: Managing a global supply chain involves dealing with logistical challenges, varying quality standards, and potential disruptions.

(vi) **Communication Barriers**: Language differences and time zone variations can hinder effective communication and collaboration among global teams.

(vii) **Digital Security**: Increasing reliance on digital systems makes multinationals vulnerable to cyber-attacks and data breaches.

(viii) **Entry barriers:** Multinationals may face various entry barriers such as product differentiation barriers, absolute cost barriers, legal barriers and fixed costs. All of these barriers may be more difficult to overcome if a multinational is investing abroad because of factors such as unfamiliarity with local consumers or government favoring local firms.

(b) Economic risk refers to the change in the present value of future cash flows due to unexpected movements in foreign exchange rates. E.g. raw material imports increasing in cost. The following are some of the reasons economic risk might be hard to quantify:

(i) Dependence on strategic decisions: The level of economic risks will be influenced by the strategic decisions made not only by the business itself to maximise its competitive position, but also the decisions made by its competitors. These decisions may be difficult to predict.

(ii) Interest and inflation rates: Changes in rates will impact upon future exchange rates, but these may be difficult to forecast over the longer-term.

(iii) Impact of shocks: Unpredictable events, such as the credit crunch, will also impact upon economic risks. The impact of these is made even more uncertain by the impact of financial contagion, how shocks in one economy will affect others.

(iv) Impact of movements in other exchange rates: The level of economic risks may not just be affected by home currency exchange rate movements. If for example M invoices French customers in €, if the $ weakens against the €, it will become cheaper for French customers to import from the USA if they can pay in $. This will apply even if the £/€ rate remains unchanged.

(v) Results of changes in exchange rates: If M is paying for its supplies in €, a strengthening of the € may ultimately mean it seeks other suppliers in a different currency zone, with new levels of currency risk.

(vi) Dependence on elasticity of different markets: The impact of exchange rate movements will depend on the price elasticity of different markets. This may be difficult to establish, particularly for a company like M that is seeking to establish itself.

(vii) Impact of switching costs: Although exchange rate movements may make the prices of the current supplier less attractive, there may be costs of finding and making arrangements with a new supplier, and also greater risks associated with a new supplier.

(viii) Natural hedges: The impact of economic risk will also depend on the extent of natural hedging, how much sales can be matched against purchases, investments against financing.

(c) The following factors could be considered when setting up a treasury function as a profit centre:

(i) **Competence of staff:** Local managers may not have sufficient expertise in the area of treasury management to carry out speculative treasury operations competently. Mistakes in this specialised field may be costly. It may only be appropriate to operate a larger centralized treasury as a profit centre, and additional specialist staff demanding high salaries may need to be recruited.

(ii) **Controls:** Adequate controls must be in place to prevent costly errors and overexposure to risks such as foreign exchange risks. It is possible to enter into a very large foreign exchange deal over the telephone.

(iii) **Information:** A treasury team which trades in futures and options or in currencies is competing with other traders employed by major financial institutions who may have better knowledge of the market because of the large number of customers they deal with. In order to compete effectively, the team needs to have detailed and up-to-date market information.

(iv) **Attitudes to risk:** The more aggressive approach to risk-taking which is characteristic of treasury professionals may be difficult to reconcile with the more measured approach to risk which may prevail within the board of directors. The recognition of treasury operations as profit making activities may not fit well with the main business operations of the company.

(v) **Internal charges:** If the department is to be a true profit centre, then market prices should be charged for its services to other departments. It may be

difficult to put realistic prices on some services, such as arrangement of finance or general financial advice.

(vi) **Performance evaluation:** Even with a profit centre approach, it may be difficult to measure the success of a treasury team for the reason that successful treasury activities sometimes involve avoiding the incurring of costs, for example when a currency devalues. For example, a treasury team which hedges a future foreign currency receipt over a period when the domestic currency undergoes devaluation may avoid a substantial loss for the company.

END OF SUGGESTED SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA 3.7 PUBLIC SECTOR AUDITS AND ASSURANCE

FRIDAY 12 SEPTEMBER 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)

Following a high-level visit by the Head of the Supreme Audit Institution (SAI) of Tanzania to Zambia, a Memorandum of Understanding (MoU) was signed between the two (2) SAIs to enhance mutual cooperation, strengthen public accountability mechanisms, and promote the adoption of international public sector auditing standards. One (1) key provision of the MoU established a bilateral staff exchange program, under which two (2) officers from each SAI would be seconded to the counterpart institution for a two (2) year period.

As a Principal Auditor from the Office of the Auditor General (OAG) of Zambia, you were seconded to the SAI of Tanzania and assigned to the Administration Directorate. This directorate is tasked with overseeing audit quality control and ensuring compliance with INTOSAI standards, including ISSAI 100 (Fundamental Principles of Public Sector Auditing) and its derivatives on financial, compliance, and performance audits.

During your initial assessment of the institutional framework and ongoing audit practices, you identified several serious challenges:

(1) Although the SAI of Tanzania is constitutionally established under the Office of the President, it has never undergone an external audit or peer review, contravening ISSAI 40 Quality Control for SAIs and ISSAI 12 (Value and Benefits of SAIs), which emphasize external validation and engagement with stakeholders.

(2) The SAI has never prepared financial statements for its own operations, despite managing considerable annual public funds. Senior management rationalized this by asserting that "no overspending" had occurred, suggesting budgetary compliance. However, this lack of financial reporting fundamentally violates the principles of transparency, accountability, and auditability.

(3) The SAI's Annual Audit Plan is rigid and does not incorporate flexibility for emerging risks or priority areas. A notable case involved serious allegations of mismanagement in road infrastructure projects under a major ministry, which remained unaudited solely because the ministry was not scheduled in the current audit cycle.

(4) Audit findings are not disclosed to the public, which underscores the importance of transparency and access to audit results in fostering trust and accountability.

(5) A significant proportion of audit staff have received no formal training on ethics and professional conduct, undermining adherence to ISSAI 30 (Code of Ethics), which emphasizes independence, objectivity, and integrity as non-negotiable values for auditors.

You requested to review the audit working papers of a financial and compliance audit that were conducted together. You were given the working papers of a financial and compliance audit that was conducted on the financial records of a donor funded project. This is a research project under a public university under the School of Public Health.

The project is for a period of three (3) years and there is a signed agreement which gives the guidelines and conditions that should be followed.

The following were extracted from the agreement:

(1) The funds for this project should be kept in a separate bank account and not in the existing university bank accounts.

(2) Bank charges should not be charged to the project. These should be borne by the University.

(3) Monthly project management accounts should be prepared showing variances between budget and the actual expenditure. Over expenditure exceeding 2% of the budget is not allowed and should be for the account of the University.

The financial statements should be prepared in accordance with generally accepted accounting principles.

(4) All manpower costs should be supported by approved time sheets and the hours per staff category should not accumulate to more than the limit set in the agreement.

Sufficient appropriate audit evidence was obtained for the financial audit that was conducted. A review of the work performed in the final stage of the audit shows a total of K0.50 million in uncorrected misstatements. The revised materiality level is K0.60 million. The reported misstatements of K0.50 million are actual misstatements observed during the audit. The audit team was of the view that a correction relating to uncorrected misstatement should be made which was rejected by management.

The suggested opinion on the financial audit is an unmodified opinion on the basis that the uncorrected misstatements of K0.50 million are less than the revised materiality level of K0.60 million.

The Head of the Supreme Audit Institution of Tanzania requested you to lead a team of Auditors to undertake a performance audit of a road construction project that has ended. The objective of the road construction project was to construct a 300 kilometre bituminous road to the boarder with a neighboring country. A total of $410 million was allocated and spent on procuring equipment and for other construction costs. At the end of the project a total of 190 kilometres was completed. The allocated funds had all been spent and completion of the remaining 110 kilometres will require further funding from the Government.

Required:

(a) Explain two (2) legal and constitutional powers of the Zambian Supreme Audit Institution that enables it perform its functions. (4 marks)

(b) Evaluate the operations of the Supreme Audit Institution of Tanzania against the principles under the three (3) objectives of ISSAI 12 Value and Benefits of SAI's.

(10 marks)

(c) (i) Explain the principle of materiality in financial auditing. (3 marks)

(ii) Discuss the appropriateness of the suggested opinion on the financial audit of the project funds. (6 marks)

(d) Explain why conducting a performance audit of Tanzania's road infrastructure program is important, considering public mismanagement allegations and a rigid audit plan.

(3 marks)

(e) Describe the application of the value for money principles on the planned performance audit of the road project. (6 marks)

(f) (i) Explain the meaning of the criteria in compliance auditing and describe the source of the criteria in the compliance audit of the project funds. (4 marks)

(ii) Describe four (4) substantive audit procedures for the compliance audit using information in the scenario. (4 marks)

[Total: 40 Marks]

SECTION B

FOUR (4) questions in this section.
Attempt any THREE (3) questions.

QUESTION TWO

(a) The Supreme Audit Institution (SAI) of Togo was established five (5) years ago. The SAI is responsible for the audit of all custodians of public funds and to report on its findings.

The SAI has grown in size over the last few years but it is not able to cope with the need to conduct audits due to the increasing population of auditable topics. In 2024, the SAI was still conducting audits for the year 2021.

You have been seconded to Togo to help the SAI come up with a strategy in deciding on the audits that should be conducted from a large population of auditable topics.

The SAI of Togo intends to start conducting performance audits. The Head of the SAI of Togo wants you to do a write up explaining what is involved in performance audits and the form of report that arises from performance audits.

Required:

(i) Explain four (4) matters that should be included in a comprehensive performance audit report. (4 marks)

(ii) Suggest two (2) matters that the Togo Supreme Audit Institution should consider in deciding on the topics for audit considering the limited human and financial resources. (4 marks)

(b) Two (2) years ago, the European Union gave the Zambian government a grant of US$ 5.0 million for use in the computerization of the operations of all the District Councils in the country. Among the grant conditions was that integrated Information Systems should be installed with a view to completely do away with manual records in the councils.

The motivation for the computerization of councils arose from the benefits that come with computerization and also the benefits of big data and data analytics in the public sector. It is hoped that arising from computerization the levels of accountability and transparency in the public sector would increase. Further, computerization is expected to make the work of the Office of the Auditor General easier and this should result in a significant increase in the number of audited activities by the Office of the Auditor General thereby help enhance accountability and transparency in the use of public funds.

One(1) of the conditions of the grant is that at the end of the project, a performance audit should be conducted by the Office of the Auditor General and that the Office of the Auditor General will take advantage of computerization and make use of Computer Assisted Audit Techniques in conducting audits in the councils.

Required:

(i) Describe two (2) objectives of the intended performance audit of the computerization of council operations in the country. (2 marks)

(ii) Explain four (4) benefits to the public sector auditors of using Computer Assisted Audit Techniques in the financial and compliance audits. (4 marks)

(iii) Describe three (3) techniques/procedures that may be performed in the IT audit using Computer Assisted Audit Techniques (CAATs). (6 marks)

[Total: 20 Marks]

QUESTION THREE

The government is committed to addressing the high levels of corruption in government and semi government institutions. Sufficient funds have been allocated to relevant institutions that will help fight the vice.

In the current year, a decision has been made that for all financial related cases, the Office of the Auditor General should be involved in the investigations and that if a prima facie case is established this will be passed on to the investigative wings for further investigation and prosecution. When the investigated cases are taken to court, the public sector auditors may be called by the investigative wings to appear before court as expert witnesses.

The government is concerned about the high maintenance costs of roads in the country. The Ministry of Transport has noted an increase in penalties for overloading of foreign truck transiting through Zambia to neighboring countries. This is indicative of the high levels of overloading which leads to damage to roads. An evaluation of the penalties charged, it was established that 90% of the penalties are charged by one (1) of three (3) weighbridges from entry to exit points. The law provides that overweight trucks shall be charged penalties by all weighbridges they pass through.

The Audit Committee of the Ministry of Transport expressed concern that most of the income for overweight charges was coming from only one (1) of the three (3) weighbridges. The committee suspects that there is misappropriation of funds in the other two (2) weighbridges unless the weighbridges are not functioning as expected. The Audit Committee recommended that a forensic investigation be conducted on the operations of the weighbridges and that necessary recommendations should be made.

You work for the Office of the Auditor General under the directorate responsible for forensic investigation. You have been assigned to conduct a forensic investigation regarding overweight trucks and the penalties charged.

The terms of reference of the investigation are that:

(1) You should advise whether or not there has been fraud involving overweight trucks and the penalties charged at all the three (3) weigh bridges.
(2) You should identify the people involved in the suspected fraudulent activities.
(3) You should quantify the loss of government revenue and make recommendations to relevant investigative wings as appropriate.

You decided to visit the three (3) weighbridges to familiarize yourself with the operations. You requested to get, for examination purposes, all the documentation at the weighbridges but you did not get the corporation expected and two (2) of the three (3) weighbridges refused to give you access to records and information. Further, when you requested to view the recordings of the security cameras installed at the weighbridges you were told that these were for security purposes and you were denied access.

Required:

(a) Explain two (2) powers of the Supreme Audit Institution of the Zambia as enshrined in the country's laws considering the forensic investigation required. (4 marks)

(b) Explain the meaning of forensic accounting and describe its use in the suspected weighbridge fraud investigation. (6 marks)

(c) (i) Explain two (2) possible actions that should be taken considering the outcome of the suspected fraud investigation into the suspected weighbridge fraud. (2 marks)

(ii) Explain the area that you will be expected to give evidence in court as an expert witness if the case is taken to court. (2 marks)

(iii) Describe three (3) additional duties you may have if called to appear before court as an expert witness. (6 marks)

[Total: 20 Marks]

QUESTION FOUR

Wuunga Milling is a subsidiary company of the Secret Service, one (1) of the security wings in the country. The company was established three (3) years ago as an initiative by the government to sell affordable maize meal for the benefit of the vulnerable in society.

The service established the milling company with the capacity to produce five thousand (5 000) bags of maize meal daily. The maximum number of bags per day that has been achieved is three thousand five hundred (3,500) bags per day. In an effort to increase production, the Secret Service Command introduced a performance based bonus for management of Wuunga Milling on meeting a daily production target of four thousand (4 000) bags in the first month and four thousand five hundred (4,500) bags daily after that and a drop in pilferage and wastage. Previously, the working losses experienced were above industry averages and the yield per ton of input was below expected levels.

Management of Wuunga Milling will now be able to increase the number of hours of operation. The company has been authorized to pay overtime on the approval of the Milling Manager.

The internal controls for inventory and stock management are poor resulting in significant losses of maize and maize meal. There have been cases of staff involved in fraudulent activities and the company simply transferred staff involved with no punitive action taken on those involved. Wuunga Milling runs a sales outlet at the factory for the sale of maize meal to the public. The bulk of the sales at the outlet are on cash basis and cash sales are banked once in a week. The members of staff working in the sales outlet are paid wages below the minimum

wages set by government. The sales outlet supervisor lives in one (1) of the low density areas in the city and appears to be living above his income. He runs two (2) maize meal shops located at a main market.

The following information on equipment included in tangible non-current assets was extracted from the draft financial statements of Wuunga Milling for the year ended 31 December 2024:

	K000
Opening balance at cost	K20 000
Additions during the year	5 000
Disposals	(2 300)
Closing balance at cost	K22 700

The policy of Wuunga Milling regarding capital expenditure is that all procurements above K1.0 million should be by way of competitive tender and subject to approval by the tender committee. For procurement below K1.0 million, three (3) quotations should be obtained from the list of approved suppliers. All disposals of tangible non-current assets require the authorization of the Chief Executive Officer.

You work for the Office of the Auditor General and you have been assigned to conduct a financial and compliance audit of Wuunga Milling. You have been provided with the details of the opening balance, the additions and disposals of equipment.

Required:

(a) Describe four (4) fraud risk factors in the audit of the financial statements of Wuunga Milling. (4 marks)

(b) (i) Explain the objective of the financial audit of Wuunga Milling. (2 marks)

(ii) Describe three (3) substantive audit procedures that should be performed in the audit equipment in the financial statements of Wuunga Milling. (6 marks)

(c) (i) Explain the objective of the compliance audit conducted with the financial audit of the financial statements of Wuunga Milling. (2 marks)

(ii) Describe three (3) substantive procedures in the compliance audit of the operations of Wuunga Milling. (6 marks)

[Total: 20 Marks]

QUESTION FIVE

The Office of the Auditor General conducted a performance and IT audit to assess the Ministry of Health's (MoH) response to the COVID-19 pandemic from the period 2019 to 2024. The audit aimed to evaluate the effectiveness, efficiency, and economy of government actions in managing the public health crisis, ensuring resource accountability, and leveraging technology to enhance pandemic response efforts. Given the significant public funds allocated for vaccines, medical supplies, and emergency healthcare infrastructure, the audit examined whether the government's response successfully mitigated risks and improved healthcare resilience.

The audit focused on key areas, including pandemic preparedness, resource distribution, financial accountability, and IT system integration. It sought to determine whether the main vulnerabilities in the healthcare system were identified, if response actions effectively addressed emerging risks, and whether robust coordination, governance, and accountability mechanisms were in place. The audit also assessed MoH's ability to implement data-driven decision-making, using health surveillance systems and digital records to track infections, vaccinations, and resource allocation.

Findings revealed significant gaps in the identification of pandemic risks and preparedness planning. The Ministry faced challenges in maintaining accurate data on case tracking, hospital capacity, and vaccine distribution. One (1) major issue was poor access to real-time healthcare data due to reliance on outdated record-keeping systems, which limited the government's ability to make timely and evidence-based decisions. While digital health systems were introduced to manage COVID-19 cases and vaccination programs, these systems suffered from inadequate IT infrastructure, cybersecurity vulnerabilities, and incomplete data migration.

Additionally, resource allocation and financial management of the COVID-19 response were flagged as areas of concern. There were cases of irregular procurement practices, including overpricing of medical supplies, non-transparent contract awards, and delays in vaccine and equipment delivery. Audit findings indicated weak internal controls over emergency funds, with instances of mismanagement, unaccounted expenditures, and potential financial leakages.

Deficiencies in governance and accountability mechanisms further complicated the response efforts. The audit found unclear roles among various government agencies, leading to coordination failures between MoH, disaster management units, and provincial health offices. There were also overlapping responsibilities between institutions, resulting in inefficiencies and duplication of efforts.

The IT audit aspect examined the use of digital health platforms, data security measures, and the effectiveness of IT controls in managing pandemic response systems. The review highlighted vulnerabilities in IT general controls, including weak access controls, lack of system audits, and minimal oversight of data integrity. In addition, the limited use of Computer-Assisted Audit Techniques (CAATs) hindered comprehensive analysis of financial transactions, procurement records, and patient data management.

These issues underscored the need for a robust performance audit to evaluate the effectiveness of the Ministry's COVID-19 response, financial management practices, and IT system reliability.

Required:

(a) Explain the objectives of performance audits in the public sector, particularly in evaluating the efficiency, effectiveness, and economy of the Ministry of Health's COVID-19 response initiatives. (3 marks)

(b) Propose a suitable performance audit approach for assessing the effectiveness of the Ministry of Health's COVID-19 adaptation strategies. (6 marks)

(c) Discuss key audit questions relevant to evaluating the Ministry of Health's COVID-19 response. (4 marks)

(d) Explain two (2) benefits of using CAATs in evaluating the Ministry of Health's COVID-19 response. (4 marks)

(e) Discuss the importance of Information Technology controls in ensuring data security and financial accountability in the Ministry of Health's digital health systems. (3 marks)

[Total: 20 Marks]

END OF PAPER

CA 3.7 PUBLIC SECTOR AUDITS AND ASSURANCE

SUGGESTED SOLUTIONS

SOLUTION ONE

(a) **Legal and constitutional powers of the Zambian Supreme Audit Institution (SAI)**

1. The Zambian Supreme Audit Institution (OAG) derives its powers from Article 249 of the Constitution of Zambia, which establishes the Auditor General as an independent constitutional officer mandated to audit and report on the public accounts of Zambia. This includes all government ministries, departments, parastatals, and institutions receiving public funds. The Constitution empowers the Auditor General to conduct financial, compliance, and performance audits, and to report findings to the National Assembly, thereby facilitating legislative oversight and public accountability.
2. The Public Audit Act 2016 provides the Auditor General with statutory powers to access all records, documents, and information necessary for audit purposes. This includes the authority to enter premises, inspect documents, require explanations from public officers, and conduct investigations. The Act also empowers the Auditor General to audit donor-funded projects and to issue audit reports independently, thereby reinforcing the principles of independence, audit scope, and access to information.
3. The Public Finance Act 2004 provides that the OAG shall have access to all documents and records that are considered necessary for carrying out audits.

(b) **Values & benefits of the SAI of Tanzania:**

1. The fact that the establishment of the SAI of Tanzania is contained in the country's constitution is compliance with one of the principles of ISSAI 12: Value and benefits of SAIs under the objective of strengthening accountability, integrity and transparency. This principle aims at safeguarding the independence of SAIs.
2. The fact that the SAI falls under the Office of the President limits its independence and this is contrary to the principles in ISSAI 12 which refer to the independence of the SAI in accordance with the provisions of the Mexico declaration.
3. According to the provisions of ISSAI 12, the SAI should be a role model organization by complying with the requirements of managing public funds that it expects other recipients to adhere to. The fact that the SAI has had no independent scrutiny of its affairs is contrary to the principle requiring this to be done under the objective of being a role model.
   The SAI is non-compliant in this respect.
4. The SAI is funded by public funds and it is subject to the principles of transparency and accountability. By not having prepared financial statements showing its activities, the SAI is not leading by example as required by ISSAI 12.
5. According to the principles in ISSAI 12, the SAI should demonstrate its ongoing relevance by responding to emerging risks. The fact that the Tanzanian SAI did not respond to the high levels of misuse of public funds in road construction projects shows that it is not complaint with this principle.
6. Non-disclosure of audit findings by the SAI is contrary to a principle under the objective of strengthening accountability, integrity and transparency which requires SAI's to report on their findings hence making it easier for the public to hold custodians of public funds accountable.

(c) (i) **The principle of materiality in financial auditing.**

Materiality is a fundamental auditing concept that refers to the significance of an omission or misstatement in financial information that could influence the economic decisions of users. Auditors apply materiality at both the planning and evaluation stages to:

- Determine the extent of audit procedures.
- Decide whether misstatements, individually or in aggregate, require adjustments.

  Materiality is a matter of professional judgment, incorporating both quantitative thresholds (e.g., 0.5% – 2% of total expenditure) and qualitative factors, such as those of disclosures.

(ii) **The appropriateness of the suggested opinion on the financial audit of the project funds.**

Appropriateness of suggested opinion on the audit of project funds:
The matter that should be considered is the effect of uncorrected misstatements on the financial statements.

The uncorrected misstatements of K0.5 million are the actual misstatements from the evidence obtained. If this is applied to the whole population the financial statements, the uncorrected misstatements will be much higher and exceed the revised materiality level of K0.6 million. It is not sufficient to consider the observed misstatements in assessing the misstatements.

The refusal to amend the financial statements on account of the uncorrected misstatements will have an impact on the audit opinion. The appropriate audit opinion will be a modified opinion. The form of modification will depend on the audit team's assessment of the materiality and pervasiveness of the impact of not amending the financial statements.

If the matter is considered material but not pervasive, a qualified opinion will be appropriate. If on the other hand the matter is considered material and pervasive, an adverse opinion will be appropriate.

(d) **Importance of performance audits in road infrastructure program:**

Road construction programs are most likely to involve significant amounts of public funds and it is important that performance audits are conducted in order to establish whether or not funds have been spent in accordance with value for money principles and that where necessary improvements will be made to avoid any wastage.
The following will be established through the performance audits:
Economy – in the use of public funds particularly on procurements and other expenditure to assess whether the best prices were spent.
Efficiency – that the resources were put to good use and that there was no wastage. Could the works done in terms of the actual road constructed have been done using lesser resources?
Effectiveness – this element will assess whether the objectives of the road construction projects determined at the planning stage have been achieved.

(e) **Application of value for money principles to the road infrastructure projects:**

Economy: The public sector auditors will with regards economy establish the procurement systems and review samples of payments made with a view to establish whether the best prices will have been paid or the equipment, materials and other expenses could have been procured using lesser resources. This evaluation will be done without compromising on the quality.
Samples to test for economy will be extracted by the public sector auditors from the amount of $410 million spent.

Efficiency: This aspect will aim at establishing the efficiency with which the resources have been put to use. The measure will be on an assessment of whether the inputs into the road project were efficiently used with no wastage. This will be achieved by comparing the output with the input. In this case, a total of 190 kilometers of road has been completed and the question will be whether the same distance could have been completed using lesser resources.

Effectiveness: This element of the performance audit will require to establish whether the intended objective has been achieved. The objective in this case was to construct a 300 kilometer road while the actual distance constructed is 190 Kilometers. Clearly the intended objective has not been made.
In evaluating the possible reason for not meeting the target consideration will be made as to whether the budget estimates were not right.

(f) **(i) Meaning and source of the criteria in the project compliance audit**

Meaning of Criteria

In compliance auditing, criteria refer to the benchmarks or standards against which the entity's conduct or performance is assessed. These are essential for evaluating whether the entity has complied with laws, regulations, contracts, or internal policies. In the case of the project compliance the source of the criteria to be used in the compliance audit is the agreement signed with the donor. This is the one that contains the conditions that must be complied with.

Source of Criteria in the Scenario

There is an agreement between the recipient of the door funds and the donor. The agreements contains the conditions attached to the use of the funds. The criteria for use in the performance audit will be established from the terms of the grant contained in the agreement.
The criteria may include the following:

- Maintenance of a separate project bank account.
- The university bearing all bank charges.
- Submission of monthly financial reports with budget variance analysis.
- Staff costs supported by authorized time sheets and limited allowable hours.

These form the audit criteria against which the project's compliance is evaluated.

(ii) **Substantive audit procedures for the project funds compliance audit**

1. Request for the monthly financial statements that have been prepared and confirm they were submitted to the donor as required.

2. Verify the existence and use of a separate project bank account by reviewing bank statements, ledgers, and reconciliations.
3. Review the expenditure summary comparing actual and budgeted expenditure and review for any over expenditure incurred. Obtain reasons for over expenditure and confirm charged to university and not project.
4. Review the financial records and confirm that no bank charges have been charged to the project.
5. Review a sample of manpower cost expenditure and confirm that all payments are supported by timesheets as per agreement. Review the hours paid for and ensure do not exceed the allowable hours per agreement.

SOLUTION TWO

(a)(i) Matters that should be included in a comprehensive performance audit report:

1. A clear explanation of the objective and the scope of the performance audit.
2. The assumptions used in the performance audit including details of the criteria used and its source.
3. Information about how the audit evidence was collected by the audit team and any limitations that may have been experienced during the audit.
4. The findings made that are sufficient and appropriate to the performance audit.
5. Conclusions reached based on the sufficient appropriate evidence obtained.
6. Recommendations that are deemed necessary considering the observations and conclusions reached.

(ii) Matters to consider in deciding on topics to audit:

1. The risks that exist on the auditable topics and priority should be given to the topics with the highest risk.
2. Consideration should be made in selecting topics that will maximize the expected impact and ultimately value of the audit considering the SAI's audit resources and capabilities.
3. The Supreme Audit Institution will also include in the audit plan any audits that may be required by law.
4. Specific requests from the executive or the president may also be included in the audit plan.

(b)(i) Objective of the intended performance audit:

1. To establish whether the computerized systems have achieved the intended objectives of computerizing all the systems and doing away with manual records.
2. To establish whether the value for money principles were followed in the acquisition and installation of the computerized system.

(ii) Benefits of using Computer Assisted Audit Techniques:

1. The speed with which audit procedures are performed using CAATs resulting in time savings in the time audits are undertaken.
2. Larger sample sizes can be tested by the auditors and thereby reducing sampling risk significantly.
3. Systems internal controls can be tested using computer assisted audit techniques procedures that cannot be performed using manual systems. This can be done by the use of test data.
4. Computer assisted audit techniques enable the auditors perform procedures they would otherwise have done manually by using audit software.

(iii) Techniques/procedures that may be performed using CAATs in the audit of financial statements of local councils:

1. Audit software could be used in selecting samples for testing by the public sector auditors.
2. Substantive audit procedures which otherwise would have to be done manually can be done using audit software.
3. Analytical procedures computing ratios and making comparisons could be done suing audit software.
4. Audit software may be used by the public sector auditors to test the controls in the IT system of the responsible party.

SOLUTION THREE

(a) **Powers of the Supreme Audit Institution in the constitution:**

1. The Supreme Audit Institution of Zambia is mandated by the Article 249 of the constitution to conduct audits including forensic investigations of all those that receive and spend public funds.
2. The Public Finance Act 2004 provides that the Auditor General who heads the Supreme Audit Institution in Zambia should have access to all documents and records considered necessary for the purpose of carrying out audits. The refusal to give the forensic investigators records requested is contrary to these provisions.
3. Recommend to the Director of Public Prosecution or other law enforcement agencies any matter of a criminal nature for the prosecution by the relevant agencies.

(b) **Meaning of forensic accounting:**

This is the use of professional accounting skills in matters that involve potential or actual criminal litigation. This will be achieved by the forensic accountant using their knowledge to establish whether or not a crime has been committed.

Forensic accounting in the weighbridge fraud investigation:

Using the case of weighbridge fraud, forensic accounting skills will be required in determining the accounting for penalties charged and also the loss suffered through the suspected fraud.

In the case at hand, the forensic accountant may obtain details of the weights of trucks entering the border according to the point of entry documentation. The accountant will require obtaining the existing maximum weights allowed on the roads and identify any trucks that were overweight at point of entry.

The forensic accountant will then verify that the overweight trucks passed through the weighbridges before final destination and verify the recorded weights.

- If the trucks were overweight, follow through and obtain evidence that the penalty was charged and that funds were received and appropriately receipted.
- If there is no evidence of payment, this will be recorded as a non-compliance requiring explanation.
- The forensic accountant will also require obtaining details of samples of trucks that are not overweight and compare the weights at the weighbridges to confirm the reliability of the weighbridges in measuring weight.
- The forensic accountant will also obtain details of all the trucks that were penalized by the one (1) weighbridge and follow through the subsequent weighbridges to confirm similar charges. If the subsequent weighbridges did not charge for overloading this confirms fraud either through misappropriation of government funds or making government lose revenue by negligently not charging overweigh trucks.

The above procedures will be done for all the weighbridges through which trucks pass before final destination.

(c) **(i) Action to take considering outcome of fraud investigation:**

The action that will be taken after conducting the forensic investigation will depend on the result and conclusion of the investigation.

1. A forensic report will require to be issued giving details of the results of the investigation. Recommendations to remedy any control weaknesses observed will be made.
2. The estimate of the loss of revenue for government will be given. If it is established that there was criminality on the part of employees who may have been involved, a recommendation will be made to report the matter to the investigative wings that will take it up and prosecute.

(ii) Area in which forensic investigator may be expected to give evidence as an expert witness:

The forensic investigator will be expected to give evidence with regards the extent of loss of revenue arising from the fraud. The forensic investigator will require to justify how the loss suffered was arrived at clearly explaining the assumptions used in arriving at the amount.

(iii) Additional duties of the auditor as an expert witness:

1. The overriding duty to help the court to reach a fair decisions based on the matters that will be presented before court in the area of expertise of the professional.
2. The need to remain independent and give a position that would still be given if the investigator had been engaged by the opposing party.
3. To restrict the evidence that will be given on matters within the expertise of the witness.

SOLUTION FOUR

(a) **Fraud risk factors in audit of financial statements of Wuunga Milling:**

1. The introduction of a performance based pay on meeting set targets could result in falsification of actual production levels in order to show that the targets have been met in order to qualify for the bonus.
2. Poor internal controls may lead staff in fraudulent activities knowing that these may not be detected on account of the poor internal controls.
3. Not taking action against staff involved in fraudulent activities will motivate others to do the same knowing that no action will be taken against them.
4. The banking of cash sales proceeds once a week could result in the misappropriation of cash with the hope that it will be replaced. Further, the staff handling cash is paid less than the legal statutory minimum wage and fraud could be justified by this.
5. The lifestyle of the shop supervisor living above his means is indicative of fraudulent activities by him.

(b) **(i) Objective of the financial audit of the financial statements of Wuunga Milling:**

The objective of the financial audit of Wuunga Milling is for the public sector auditors to obtain sufficient appropriate evidence and form an opinion on the financial statements.

(ii) Substantive audit procedures for equipment:

1. Confirm that the opening balance in the general ledger is the closing balance for the previous year by inspecting the previous year audit working papers.
2. For a sample of additions confirm by inspection that the additions were authorized.
3. Examine the authorization for the disposal of some equipment.
4. Recompute the calculation of any profit/loss on disposal of equipment.

(c) **(i) The objective of the compliance audit of Wuunga Milling:**

The objective of a compliance audit conducted with the audit of the financial statements is to obtain evidence that the expenditure is in accordance with the regulations that guide it. Criteria will have to be established which will form the basis of the compliance audit.

(ii) Substantive procedures in compliance audit of Wuunga Milling:

1. For a sample of expenditure above K1.0 million confirm that the award was by way of competitive bidding by examining the related documentation inviting for tenders.
2. For procurement below K1.0 million, inspect the procurement documentation and confirm that three quotations were obtained as required.

3. For disposal of equipment, verify that the disposals were authorized by the Chief Executive Officer.

SOLUTION FIVE

(a) **Objectives of Performance Audits in the Public Sector:**
The objectives of performance audits in the public sector include evaluating the efficiency, effectiveness, and economy of government actions and initiatives. Specifically for the Ministry of Health's COVID-19 response initiatives, the performance audit aims to:

1. **Efficiency**: Assess whether resources such as time, money, and manpower were used optimally in responding to the pandemic, ensuring that the results achieved were proportionate to the input resources allocated.

2. **Effectiveness**: Determine whether the Ministry's response to the COVID-19 pandemic successfully achieved its intended outcomes, such as reducing infection rates, ensuring timely vaccine distribution, and providing adequate healthcare to the population.

3. **Economy**: Ensure that the public funds allocated for the pandemic response were spent wisely, with a focus on cost-effective practices, minimizing waste, and avoiding unnecessary expenditures, particularly in procurement and resource allocation.

(b) **Performance Audit Approach for Assessing the Effectiveness of the Ministry of Health's COVID-19 Adaptation Strategies:**
One of the requirements of performance audits is that the auditor should chose a method that they will follow from the three possible approached.

The auditors will require to justify the choice of method that is chosen. A choice will have been made from the three possible approaches as follows:

1. **Result-Oriented Approach**: This focuses on assessing whether the Ministry's resources were used effectively to achieve desired outcomes, such as vaccination coverage, hospital capacity, and timely decision-making. The audit will track performance indicators and identify any deviations from the planned objectives, such as inefficiencies or resource misallocation.
2. **Problem-Oriented Approach**: This addresses specific challenges like inadequate data collection, procurement inefficiencies, IT vulnerabilities, and governance issues. The audit will identify these issues, assess their root causes, evaluate their impact on the pandemic response, and suggest corrective actions to improve systems, procurement processes, and internal controls.
3. **System-Oriented Approach**: This examines the effectiveness of the Ministry's systems, such as health information, financial management, and IT platforms, and assesses governance and accountability frameworks. The audit will highlight weaknesses in these systems and recommend improvements for long-term sustainability and effectiveness.

(c) **Key Audit Questions Relevant to Evaluating the Ministry of Health's COVID-19 response:**
1. **Effectiveness of planning**: Did the Ministry of Health conduct adequate risk assessments and preparedness planning before and during the pandemic? Were the key risks identified and addressed effectively?
2. **Efficiency of resource allocation**: Were resources such as vaccines, medical supplies, and healthcare infrastructure distributed efficiently to meet demand, and were there any cases of misallocation or wastage?

3. **Economy in the use of resources**: Were public funds allocated for the pandemic response managed properly? Were there any instances of irregular procurement, overpricing, or mismanagement of funds?

(d) **Benefits of Using CAATs in Evaluating the Ministry of Health's COVID-19 Response:**

Computer-Assisted Audit Techniques (CAATs) can offer significant benefits in evaluating the Ministry of Health's COVID-19 response:

1. **Improved efficiency**: CAATs allow auditors to quickly process large volumes of data, reducing the time needed for manual analysis and enabling a more comprehensive review of financial transactions, procurement records, and patient data.
2. **Increased accuracy**: With CAATs, auditors can reduce the risk of human error in data analysis, ensuring more reliable results and improving the accuracy of findings related to financial management, procurement irregularities, and data integrity.
3. **Enhanced fraud detection**: CAATs can be used to detect anomalies in procurement practices, financial transactions, and health records, allowing auditors to identify potential fraud or mismanagement of public funds.
4. **Data integrity verification**: CAATs help in evaluating the reliability and completeness of digital records, ensuring that health data, financial records, and procurement information are consistent, accurate, and secure.

(e) **Importance of IT Controls in Ensuring Data Security and Financial Accountability in the Ministry of Health's Digital Health Systems:**

The importance of IT controls in ensuring data security and financial accountability in the Ministry of Health's digital health systems cannot be overstated. Key reasons include:

1. **Protection of sensitive data**: IT controls, such as strong access controls and encryption, ensure that personal health information, financial data, and sensitive government records are protected from unauthorized access, preventing breaches of patient confidentiality and financial data theft.
2. **Integrity of health data**: IT controls help maintain the integrity of health data by preventing unauthorized alterations and ensuring that case tracking, vaccination records, and healthcare statistics are accurate and reliable.
3. **Financial accountability**: Robust IT controls, including system audits and transaction monitoring, enable the Ministry to track financial transactions, ensuring that public funds are spent appropriately and in line with the intended objectives. They also help detect any irregularities or fraudulent activities in financial management.
4. **Compliance with regulations**: IT controls ensure that the Ministry's digital health systems comply with relevant data protection laws and regulations, such as the Data Protection Act and Public Financial Management regulations, safeguarding both the Ministry's reputation and public trust.

END OF SUGGESTED SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA 3.8: PUBLIC SECTOR FINANCIAL MANAGEMENT

FRIDAY 12 SEPTEMBER 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: 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- (COMPULSORY)

As a consultant, you have been hired by the Ministry of Finance to evaluate the following two (2) independent investment appraisal cases:

(a) **Case I**

Kabwe Trades Institute is evaluating the purchase of machine to produce bathing soap. The machine is expected to cost ZMW2 million. Production and Sales of the soap are forecasted as follows:

Year	Production/Sales per unit
1	70,000
2	106,000
3	150,000
4	72,000

The selling price of the product will be K40 per unit while the variable cost of the product will be K24 per unit. Selling price inflation is expected to be 8% per year and variable cost inflation is expected to be 10% per year. No increase in fixed costs is expected since Kabwe Trade Institute has the capacity in both space and labour terms. Producing and Selling products will call for increased investments in working capital. Historical working capital with Kabwe Trades includes that at each start of the year investment in working capital will need 7% of sales revenue. Tax is at 25% per year in which the taxable profit occurs. The new machine is expected to have no scrap value at the end of a four (4)-year period. Kabwe Trade Institute uses a normal after-tax cost of capital of 15% for investment appraisal purposes.

Required:

Evaluate the proposed investment using Net Present Value methold. (15 marks)

(b) **Case II**

Luano District is considering an investment of ZMW 920,000 in a non-current asset expected to generate cashflows over the next five (5) years. Unfortunately, annual cashflows from the investment are uncertain, but the following probability distribution has been established:

Annual Cashflow (ZMW)	Probability
100,000	0.3
200,000	0.5
300,000	0.2

At the end of the life span the asset is expected to be sold at ZMW 80,000. The cost of capital is 10%.

Required:

(i) Advise Management whether this investment should be undertaken. (9 marks)

(ii) Discuss the following:

(1) Benefits and

(2) Demerits of expected values. (16 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt any THREE (3) questions.

QUESTION TWO

Organisations are exposed to various types of risks. From an orgainsation's individual perspective therefore, risk management should be part and parcel of the company's risk management frame work. This entails the provision of structure on the management of these risks which should be mapped against the aims of the organisation.

Required:

(a) Explain what is meant by Risk Management Framework (RMF). (5 marks)

(b) Explain the four (4) main categories of risk control. (8 marks)

(c) Explain the areas of focus in addressing the financial risk management in the public sector entities that arise from the approved budgtes and their associated cashflows.

(7 marks)

[Total: 20 Marks]

QUESTION THREE

(a) A State-owned Enterprise has K400 million in surplus funds which it intends to invest in:

(i) Shares in a startup company,

(ii) Developing its own existing markets, and

(iii) Retain as cash in the Bank.

The expected returns of each investment are tabulated below:

Option	**High Growth 20%**	**Low Growth 40%**	**Recession 40%**
Shares in Start up	100m	15	-40m
Developed Market	80m	25	0m
Retain in Bank	28m	21	28m

The Chief Executive Officer (CEO) intends to present a paper to the Board of Directors on how he intends to invest the funds. Considering that in the public sector resources that are used are not private funds but they are provided by tax payers and other resource providers and public officials have a duty to ensure value for money. The CEO has written to the office of the Director seeking advise on the utilization of the surplus funds.

Required:

(i) Explain four (4) attitudes towards risk that the CEO should take into account. (8 marks)

(ii) In relation to the table above, examine the three (3) models that include various risk attitudes that can assist in decision making. (6 marks)

(iii) Explain how the CEO can decide on the best option for an investment. (6 marks)

[Total: 20 Marks]

QUESTION FOUR

The Ministry of Finance and National Planning projects Zambia's Nominal GDP to grow by about 13% to K641.6 billion in 2024. With the 2024 budget set at 27.8% of GDP. The growth in revenue is intended to reduce the fiscal deficit in 2024 to 4.8% of GDP from 7.7% in the previous year.

One key metric used to guide fiscal policy is the country's debt-to-GDP ratio. At the end of December 2023, the domestic debt stock increased to K232.6 billion, from K210 billion in 2022. Government intends to limit domestic borrowing to no more than 2.5% of GDP.

As debt is likely to grow to higher levels before any debt write offs, it will be important for GRZ to stabilise the debt-to-GDP ratio and prevent debt from continuing to grow unsustainably.

It is clear that debts levels pose tough economic challenges and choices for Government policymakers. A delayed debt write-off will create a rise in debt levels that would be an economic disaster for the Government purse.

Required:

(a) During a global crisis such as the COVID 19 pandemic, the role of the International Monetary Fund may be particularly important for some countries. Explain the main roles of the International Monetary Fund (IMF). (5 marks)

(b) The preparation of a medium-term fiscal framework at a macroeconomic level usually includes projections around a range of Government policies.

Explain the types of policies you would expect a Government to implement to manage its macroenomic environment, and give examples of targets or specific policy objectives, that these policies may contain. (8 marks)

(i) Briefly describe the four (4) main methods of financing available for Governments such as Zambia. (2 marks)

(ii) Explain Treasury Bills and GRZ Bonds as potential sources of borrowing that a country like Zambia can utilize to help with its economic recovery from a major economic shock such as the war in Ukrain, and discuss the benefits or demerits of these different sources of borrowing. (5 marks)

[Total: 20 Marks]

QUESTION FIVE

The nation of "PeaceLand," has recently undergone economic reforms to open up its markets to foreign investment and encourage private enterprise. The Government of PeaceLand is enthusiastic about attracting foreign companies to boost economic growth and create job opportunities for its citizens. However, despite these efforts, the country is facing significant challenges that indicate the presence of market failures.

Incomplete Information: PeaceLand's Government, eager to attract foreign investors, has not adequately regulated the information flow in the market. As a result, local consumers and even some businesses lack crucial information about the quality and safety standards of the products and services offered by these foreign companies. This information gap has led to consumers making uninformed decisions, and in some cases, purchasing substandard or unsafe products.

Externalities from Industrial Growth: PeaceLand has experienced rapid industrial growth due to the influx of foreign companies, but this has come at a cost to the environment. The industries, in their pursuit of profit, have been releasing pollutants into the air and water, causing environmental degradation. The local population is now experiencing health issues, and there is a growing concern about the long-term sustainability of the environment.

Income Inequality and Access to Education: The economic reforms have led to a concentration of wealth in the hands of a few, exacerbating income inequality in PeaceLand. Many citizens, particularly those in rural areas, are unable to access quality education due to financial constraints. This has resulted in a significant portion of the population being excluded from the benefits of economic growth, perpetuating a cycle of poverty.

Required:

You are a Public Sector Financial Management Consultant for the Ministry of Commerce and Industry in PeaceLand. The Permanent Secretary in the Ministry of Commerce and Industry has asked you to write a report addressing the following three (3) issues:

(a) The contribution of incomplete information to market failure in PeaceLand, and what measures the Government should implement to address this issue and ensure a more transparent market. (6 marks)

(b) A discussion of how negative externalities from industrial growth can lead to market failure in PeaceLand. What policies and regulations the Government should implement to internalize these external costs and promote sustainable development. (7 marks)

(c) Explanation of how income inequality and limited access to education can contribute to market failure in PeaceLand. What steps the Government should implement to address these issues and ensure more inclusive economic growth? (7 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

$$s_p = \sqrt{w_a^2 s_a^2 + w_b^2 s_b^2 + 2 w_a w_b r_{ab} s_a s_b}$$

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.

CA 3.8 PUBLIC SECTOR FINANCIAL MANAGEMENT

SUGGESTED SOLUTIONS

SOLUTION ONE

(a) NPV

ZMW'000					
Year	**0**	**1**	**2**	**3**	**4**
Sales		3,024	4,944.9	7,558.5	3,917.52
Variable Costs		(1,848)	(3,078.24)	(4,791)	(2,530.08)
Contribution		1,176	1,866.66	2,767.5	1,387.44
Capital Allowance		(500)	(500)	(500)	(500)
Taxable profit		676	1,366.66	2,267.5	867.44
Tax 25%		(169)	(341.665)	(566.875)	(216.86)
After tax profit		507	1,024.995	1,700.625	650,580
Capital Allowance		500	500	500	500
		1,007	1,524.995	2,200.625	1,150
Initial Investment	(2,000)				
Working Capital	(211.68)	(134.4)	(183.036)	254.891	274.225
Net cashflow	(2,211.68)	872.6	1,341.959	2,455.516	1,424.225
DF	1	0.870	0.756	0.658	0.574
PV	(2,211.68)	759.162	1.014.521	1,615.73	817.505

NPV = 1,995.238 = Positive NPV , therefore the project should be undertaken

Workings

Years	**1**	**2**	**3**	**4**
Sales	43.2	46.65	50.39	54.41
Sales Volumes	70,000	106,000	150,000	72,000
Sales Revenue	3,024,000	4,944,900	7,558,500	3,917,520
Variable Costs	26.4	29.04	31.94	35.14
Sales volume	70,000	106,000	150,000	72,000
Variable Costs	1,848,000	3,078,240	4,791,000	2,530,000

Working Capital

Year 0 Investment	3,024,000 x 0.07 = 211,680
Year 1 Investment	4,944,000 x 0.07 = 346,080
Year 2 investment	7,558,800 x 0.07 = 529,116
Year 3 Investment	3,917,000 x 0.07 = 274,225
Incremental Investment in working	
Year 0 Investment	3,024,000 x 0.07 = 211,680
Year 1 Investment	346,080 – 211,680 = 134,400
Year 2 Investment	529,116 – 346,080 = 183,036
Year 3 Investment	274,225 – 529,116 = 254,891
Year 4	274,225

(b)(i) Advise management whether this investment should be undertaken.

Annual Cashflow	Probability	Expected Value
100,000	0.3	30,000
200,000	0.5	100,000
300,000	0.2	60,000
		190,000

Time	**Cash flow**	**DF 10%**	**PV**
0	(920,000)	1	(920,000)
1 - 5	190,000	3.791	720,290
5	80,000	0.621	49,680
NPV			**(150,030)**

The project has a negative NPV, therefore it should not be undertaken.

ii) Explain advantages and disadvantages of expected values.

S/N	Question
	Advantages i. The technique recognizes that there are several possible outcomes and is, therefore, more sophisticated than single value forecasts. ii. Enables the probability of the different outcomes to be quantified. iii. Leads directly to a simple optimizing decision rule. iv. Calculations are relatively simple. **Disadvantages** i. By asking for a series of forecasts the whole forecasting procedure. The probabilities used are also usually very subjective. ii. The EV is merely a weighted average of the probability distribution, indicating the average payoff if the project is repeated many times. iii. The EV gives no indication of the dispersion of possible outcomes about the EV. The more widely spread out the possible results are, the riskier the investment is usually seen to be. The EV ignores this aspect of the probability distribution. iv. In ignoring risk, the EV technique also ignores the investor's attitude to risk. Some investors are more likely to take risks than others.

SOLUTION TWO

(a) Risk management framework:

- Risk Identification

  The first step in identifying the risks a company faces is to define the risk universe. The risk universe is simply a list of all possible risks. Examples include IT risk, operational risk, regulatory risk, legal risk, political risks, strategic risks and credit risks.
  After listing all possible risks, the company can select the risks to which it is exposed and categorize them into core and non-core risks.

- Risk Measurement and assessment

  Risk measurement provides information on the quantum of either a specific risk exposure or an aggregate risk exposure and the probability of a loss occurring due to those exposures. When measuring specific risk exposure it is important to consider the effect of that risk on the overall risk profile of the organization.

- Risk Mitigation

  Having categorized and measured its risks, a company can then decide on which risks to eliminate or minimise, and how many of its core risks to retain.

- Risk Reporting and monitoring

  It is important to report regularly on specific and aggregate risk measures in order to ensure that risk levels remain at an optimal level.

- Risk Governance

  Risk governance is the process that ensures all employees perform their duties in accordance with the risk management framework.

  (1 mark for each component identified for a total of 5 marks)

(b) The four main categories of risk control include the following:

- Tolerate
  Assessment is made that the risk can be tolerated without further action being taken or a decision is made that the risk cannot be directly addressed, but contingency plans can be put in place to mitigate the impacts of the risk should it arise.
  Risk tolerance is related to the acceptance of the outcomes of a risk should they occur, and having the right resources and controls in place to absorb or tolerate the given risk.

- Treat
  This involves developing a range of options for mitigating risks, assessing those options and then preparing and implementing action plans.

- Transfer
  Particularly useful with regard to financial risk, a risk can be transferred to third parties using insurance contracts or other similar mechanisms.

- Terminate

  This is where the risk is so great that the only option is to terminate the activity. This option can be restricted in the public sector as there may be a legal or other requirement to deliver a public good or service.

  (2 marks for each valid risk control for a total of 8 marks)

(c) Budget Performance Management – Risk Control

Best practices to ensure efficient and effective budget execution, monitoring and control include:

(i) Effective procedures for the collection and monitoring of revenue.

(ii) Ability to forecast cash commitments and provide information on the cash position.

(iii) Integrity and completeness of financial data, and information on timely budget execution.

(iv) Effective internal controls on payroll and non-salary expenditure.

(v) Transparent and competitive procurement arrangements.

(vi) System of effective budget standards, processes and controls to ensure budget compliance.

(vii) Efficient translation of revenue and expenditure plans into delivery of public goods and services.

SOLUTION THREE

S/N	Questions
a)	**Explain four attitudes towards risk that the CEO should take into account**. • Risk Seeker – Looks for high returns and accepts high risks associated with them; • Risk Averse – Looks to limit risk, which will generally lead to low returns; • Regret Averse - Looks to minimize the impact of situations not going in their favour; • Risk Neutral – Will tend to disregard individual risks and outcomes and instead focus on the expected value of a decision.
b)	**In relation to the table above, examine the four models that include various risk attitude that can assist in decision making.** • Maximaxi – a risk seeker would look for the highest possible outcome. They would invest the K400 million in shares for the startup company as this provides the highest possible return of K100m. • Maxmin – a risk averse investor would look for the best outcome in the worst possible situation. As the minimum outcomes are a loss of K40m if investing in a startup, K0m if own markets and K28m if retaining cash in the bank, then the risk averse investor would retain the cash in the bank. • Minimax regret – More complex as it requires an examination of opportunity cost and understanding what the level of regret would be in the event that the choice providing the highest return was not made. Requires the development of a regret matrix which shows the best possible outcome depending on whether the economy has, low growth or recession.
c)	**Explain how the CEO can decide on the best option for an investment** If the CEO is a risk neutral or averse decision maker, he/she would choose to invest in a sector that offers the highest expected return for the given level of risk, as measured by the standard deviation. Developed markets offer their highest return based on EVs. However, the accompanying risk needs to be determined.

Option	**High Growth 20%**	**Low Growth 40%**	**Recession 40%**	**Expected Value (m)**

Shares in Start up	100m	15	-40m	10
Developed Market	80m	25	0m	26
Retain in Bank	28m	21	28m	25.2

- Initially the EV for each investment option is calculated,
- Then to measure their respective risks, their standard deviations are quantified,
- Their Coefficients of Variations can be derived as (EV/standard deviation) and used as a basis to further assess which investment offers the best risk-return trade off.

QUESTION FOUR

(a) The IMF cites its roles as:

- Surveillance - involves the monitoring of economic and financial developments, and the provision of policy advice, aimed especially at crisis-prevention.
- Lending to countries with balance of payments difficulties, to provide temporary financing and to support policies aimed at correcting the underlying problems; loans to low-income countries are also aimed especially at poverty reduction.
- Third, the IMF provides countries with technical assistance and training in its areas of expertise.

  Supporting all three of these activities is IMF work in economic research and statistics.

  In recent years, as part of its efforts to strengthen the international financial system, and to enhance its effectiveness at preventing and resolving crises, the IMF has applied both its surveillance and technical assistance work to the development of standards and codes of good practice in its areas of responsibility, and to the strengthening of financial sectors.

  The IMF also plays an important role in the fight against money-laundering and terrorism.

(b) Macroeconomic projections are not simple forecasts of trends in macroeconomic variables. Projections are based on a definition of targets and instruments in policy areas such as:

- Monetary policy – control over interest rates and money supply
- Fiscal policy – levels of government taxation and spending
- Exchange rate and trade policy
- External debt management
- Regulation and promotion of private sector activities, and
- Reform of public enterprises.

For example, the policy objective of reducing inflation normally corresponds to targets such as:

- The level of the deficit and
- The debt to GDP ratio.

While specific instruments can include:

- Changes in the balance of direct and indirect taxes, and
- Credit policy measures.

A macroeconomic framework should include projections of the government accounts, which form a medium term fiscal (or financial) framework (MTFF). Projections should cover the current year and a forward period of 3 to 4 years. The MTFF should detail the broad

economic categories of revenue and expenditure. Moreover, it should preferably be supplemented with expenditure estimates by main function or sector.

(b)(i) Methods of financing for government

(1) Borrowing

Domestically

Banks, Individuals, others – ie raising taxes, treasury bills, bonds

Externally

Banks, Financial institutions, Governments

(2) Printing money

(3) Sale of government owned assets

(4) Deferred payments

(b)(ii) Sources of Government borrowing

Treasury Bills

Treasury bills are defined as government financial instruments that have a maturity period of less than a year. They are therefore used for short term financing.

Treasury bills are the shortest-term Treasury securities, those that mature within a year (from the time they are issued). The Treasury issues three (91 day), six-month (182 day) bills, nine months (273) and a one-year bill (364) monthly.

Treasury bills are discount instruments. Rather than making interest payments, they are issued at a discount to face value and mature at face value. The interest rate is a function of the purchase price, the face value and the time remaining until maturity.

Bills are quoted in terms of their discount rate, or interest rate based on a 360-day year. As with bond yields, when the discount rate is going up, a bill is losing value. A 'bond-equivalent yield' can be calculated for a bill, to allow for a comparison with other debt instruments.

Government Bonds

Treasury bonds are financial instruments that have a maturity period of more than one year.

When buying them, you are effectively lending money to the government, which promises to pay back the amount in full (known as the principal) at a set date, along with interest (known as the coupon).

GRZ bond pay out half the annual coupon every six months until the maturity date, when the final coupon payment and principal (the initial investment) are paid to the holder in full.

Bonds are issued at par (K100), but are then traded on the open market. This means you can sell the bond before its redemption date, in which case you might not recoup your initial investment. However, it also means that you can buy bonds below par and hold them until redemption to make a profit. Of course, if you buy them above par you can make a capital loss on redemption.

Bond prices rise when the Bank of Zambia cuts the base interest rate, and fall when the base rate goes up. So bond yields rise and fall with interest rates. This is one of the great attractions of bonds; you can lock into a high yield that will be maintained no matter how far rates subsequently fall.

Bond prices are also affected by the market's perception of future interest rates, and this is reflected in the yield curve. The longer a bond has to maturity, the more sensitive it is to changes in interest rates – referred to as duration risk.

For both bonds and treasury bills, these may be traded, but will only rarely be spent on goods and services. In this way, the expected increase in inflation due to the increase in national wealth is lower than if the government had simply printed the money and increased the more liquid forms of wealth (i.e., the money supply).

Other sources include banks and financial institutions, international and domestic, borrowing from other governments.

SOLUTION FIVE

REPORT

FROM: The Consultant

Public sector financial management

Ministry Of Commerce and Industry

LUSAKA.

TO: The Permanent Secretary

Ministry Of Commerce and Industry

LUSAKA

2nd February, 2024

Dear Permanent Secretary,

RE: RECOMMENDATIONS TO SOLVE THE PROBLEMS OF MARKET FAILURE IN THE ECONOMY.

These scenarios illustrate how market failures can manifest in PeaceLand, highlighting the importance of effective government intervention and policy implementation to create a more stable and equitable market environment. industrial growth and income inequality and access to education.

I hereby recommend the following interventions for government to solve the problems of market failure in the economy with regard to (1) incomplete information (2) externalities from industrial growth and (3) income inequality and access to education.

1. Incomplete Information: To address the issue of incomplete information in PeaceLand's market, the government could implement the following solutions:

- **Strengthen Consumer Protection Laws:** Enforce and enhance laws that require companies to provide accurate and comprehensive information about their products and services. This includes clear labeling, disclosure of potential risks, and adherence to safety standards.
- **Establish Regulatory Bodies:** Create regulatory bodies or agencies responsible for monitoring and ensuring compliance with information disclosure standards. These bodies can conduct regular audits and investigations to identify and penalize companies that fail to provide accurate information.
- **Promote Consumer Education:** Invest in educational campaigns to raise awareness among the local population about their rights as consumers. This includes educating them on how to critically evaluate product information and make informed choices.

2. Externalities from Industrial Growth: To mitigate the negative externalities associated with industrial growth, the government could implement the following measures:

- **Environmental Regulations:** Introduce and strictly enforce environmental regulations that set limits on emissions, waste disposal, and other harmful practices.

Companies should be held accountable for any environmental damage caused by their operations.

- **Incentives for Sustainable Practices:** Provide incentives, such as tax breaks or subsidies, to companies that adopt environmentally friendly practices. This could encourage businesses to invest in technologies and processes that reduce their environmental impact.
- **Community Engagement:** Involve local communities in decision-making processes related to industrial activities. This ensures that the concerns and needs of the affected population are considered, leading to more sustainable and socially responsible development.

3. Income Inequality and Access to Education: To address income inequality and improve access to education, the government could implement the following strategies:

- **Progressive Taxation:** Implement progressive tax policies that impose higher taxes on the wealthy and use the revenue to fund social programs, including education. This can help redistribute wealth and reduce income inequality.
- **Invest in Education Infrastructure:** Allocate resources to improve educational infrastructure, especially in rural areas. This includes building schools, providing scholarships, and ensuring that quality education is accessible to all, regardless of socio-economic status.
- **Skill Development Programs:** Implement skill development programs that equip individuals with the necessary skills for employment. This can help bridge the gap between the rich and poor by providing opportunities for upward mobility.

Implementing these solutions requires a coordinated effort from the government, regulatory bodies, businesses, and the community. By addressing these market failures, PeaceLand can create a more inclusive and sustainable economic environment for its citizens.

END OF SUGGESTED SOLUTIONS