CA ZAMBIA PROGRAMME EXAMINATIONS

CA CERTIFICATE IN ACCOUNTANCY

CA 1.1: FINANCIAL ACCOUNTING

MONDAY 8 DECEMBER 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 A statement of cash flow is covered under IAS 7. The standard requires the cash flows to be classified and reported under three headings.

Under which of the following headings should profit on sale of equipment be reported?

A. Cash flows from financing activities.

B. Cash flows from operating activities.

C. Cash flows from administrative activities.

D. Cash flows from investing activities.

(2 marks)

1.2 Sanki Isaac, a sole trader, sold goods with a list price of K1,100 for cash. He allowed the customer 15% trade discount.

Which of the following journal entries correctly records the transaction?

A. Dr Cash K935, Cr Sales K935

B. Dr Cash K1,100, Cr Sales K935, Cr Discount allowed K165

C. Dr Cash K1,100, Cr Sales K1,100

D. Dr Sales K935, Cr Cash K935

(2 marks)

1.3 The following totals were extracted from the ledger of Gift Bwalya and relate to the month of January 2024, the first month of trading:

	K
Discount Received	4,250
Returns inwards	3,900
Purchases	45,940
Cheques to suppliers	35,845
Cheques from customers	55,905
Sales (all on credit)	78,425
Returns outwards	2,514
Irrecoverable Debts	845

What is the receivables control account balance at the end of January 2024?

A. K 25,226

B. K 15,756

C. K 19,465

D. K 17,775

(2 marks)

1.4 The following information was extracted from Doris Daka's business in respect of the year to 31 December 2024.

	K
Purchases	25,740
Opening inventory	6,200
Drawings of goods for personal use	900
Closing inventory	4,220

The proportion of profit to sales Doris Daka maintains is 40%. What is the sales revenue for the year?

A. K 37,548

B. K 17,880

C. K 44,700

D. K 10,728

(2 marks)

1.5 Name the ledger in which personal accounts of suppliers are recorded.

A. Trade receivables ledger.

B. General ledger.

C. Nominal ledger.

D. Trade payables ledger.

(2 marks)

1.6 Which two (2) sets of the three (3) account balances below would appear on the same side of the trial balance?

1 Capital, Accounts Payables and Sundry expenses.

2 Distribution expenses, purchases and prepayments of expenses.

3 Cost of sales, non-current assets and import duty on purchases.

4 Drawings, Discount Received and Trade receivables.

A. 1 and 3

B. 2 and 4

C. 2 and 3

D. 3 and 4

(2 marks)

1.7 Mike and Ernest are partners sharing profits and losses in the ratio 2:1 respectively. Interest on drawings is charged at 10% per annum. During the year to 31 December 2024, drawings by the partners were; Mike K40,000 and Ernest K50,000. The drawings were made in equal installments on 1 January 2024 and 1 July 2024 respectively. The partnership profit for the year was K171,500.

What was the total amount of interest on drawings that was charged on the partners for the year ended 31 December 2024?

A. K6,750

B. K9,000

C. K4,000

D. K5,000

(2 marks)

1.8 Nyandimba Ltd Company had an opening balance for payables of K400,000. The Cheques that were paid to suppliers during the accounting period amounted to K340,000 and the discount that were received amounted to K70,500. The closing balance for payables was at K250,600. Calculate the purchases figure?

A. K261,100

B. K120,100

C. K240,100

D. K920,100

(2 marks)

1.9 Which two (2) of the four (4) transactions below would be reported as current liabilities in the Statement of Financial position?

1. Estimate of income tax on the profit for the year.
2. A revaluation surplus.
3. A loan due for repayment within the next 12 months.
4. Share premium on issue of preference shares.

A. 1 and 2

B. 2 and 3

C. 1 and 3

D. 2 and 4

(2 marks)

1.10 Subscription received by cheque during the year 31 December 2024 was K500,000. Subscription accrued at 31 December 2023 was K60,000. At the end of the year 31 December 2024 subscription accrued amounted to K70,000.

Calculate the amount of subscription that should be charged to a statement of profit or loss.

A. K510,000

B. K490,000

C. K370,000

D. K500,000

(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)

ABC partnership consists of three partners namely: Alice, Bob and Chanda. Sharing profits in the ratio 2:2:1. They prepare financial statements for the year ending 31 March each year. Their partnership agreement states as follows:

Regarding profit distribution:

(1) Partners receive interest on their capital balances of 7% per annum. The capital balances at the start of the year were:

- Alice K220,000
- Bob K200,000
- Chanda K70,000

(2) Alice receives a salary of K20,000 per annum.

(3) Partners are charged interest on their total drawings at the end of the year.

(4) Any partner who lends money to the business shall be paid interest at 6% per annum.

The following is applicable to the ABC Partnership for the year ended 31 March 2025:

(i) During the year, the partnership made a profit, before appropriation after all expenses but before interest on the loan, amounting to K780,000.

(ii) The partners made drawings from the business as follows:

Alice	K15,600
Bob	K13,000
Chanda	K7,000

(iii) The current account balances at 1 April 2024 were as follows:

Alice	K60,000 credit
Bob	K63,000 credit
Chanda	K400 debit

(iv) Bob lent the ABC partnership K16,000 loan at an interest rate of 6%. The loan was received on 1 July 2024.

(v) The interest charged on the partners' drawings for the year was as follows:

Alice	K860
Bob	K700
Chanda	K500

(vi) The agreement to pay Alice her annual salary was reached on 30 September 2024 and it was agreed her salary would not be backdated.

(vii) No partner made additional contribution of capital during the year.

Required:

(a) Prepare the partnership appropriation account for the year ended 31 March 2025. (10 marks)

(b) Prepare the partners' current accounts for the year ended 31 March 2025. (10 marks)

[Total: 20 Marks]

<u>QUESTION THREE</u>

(a) Compare and contrast the accounting systems utilized in public and private sectors. In your response, outline the key characteristics, objectives, and regulatory frameworks that distinguish the two. (13 marks)

(b) NN Co. is a private limited company that was recently incorporated to provide training and education services. The company was formed with an authorized share capital of 10 million K1 shares. The two shareholders who are also directors each purchased 20,000 shares at K2.50 per share at the start of the year. The company is expected to grow rapidly and directors plan to raise further finance through bank loan and issuing shares to family members of the two directors. The year end for NN Co. is 31 December.

During the first year to 31 December 2024, NN Co. made a profit before tax of K700,000. Income tax on company profits of K68,000 was provided for the year. A total of 30,000 shares were issued to family members at a fair value of K2.70. The two directors declared dividends for themselves of 50 ngwee per share. Dividends paid to other family members were 30 ngwee per share. Directors also decided to transfer K80,000 into general reserve.

At 31 December 2024, NN Co. revalued its land that had been bought on 1 January, 2024 for K500,000 to K650,000.

Required:

Prepare a statement of changes in equity for NN Co. for the year ended 31 December 2024. (7 marks)

[Total: 20 Marks]

QUESTION FOUR

Lucina is a private company that deals in solar panels and electrical products. The company would like to get a loan finance because the demand for its products is overwhelmingly high. The following are the financial statements for the year to 31 December 2024, together with comparatives as appropriate.

STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME FOR THE YEAR ENDED 31 DECEMBER, 2024.

	K
Revenue	26,200
Cost of sales	(9,200)
Gross profit	17,000
Operating expenses	(8,540)
Operating profit	8,460
Finance costs	(800)
Investment income	350
Profit before tax	8,010
Income tax expense	(2,400)
Profit after tax	5,610
OTHER COMPREHENSIVE INCOME	
Revaluation surplus	600
Total Comprehensive Income	6,210

STATEMENT OF FINANCIAL POSITION AS AT 31 DECEMBER

	2024	2023
	K	**K**
Non Current Assets:		
Land and Buildings	4,480	2,520
Plant and Equipment	2,840	1,275
7,320	3,795	
Current Assets:		
Inventories	1,270	2,560
Trade Receivables	2,035	1,585
Cash and Cash equivalents	2,195	1,850
5,500	5,995	
	12,820	9,790

Equity:

K1.00 Ordinary shares	3,000	2,400	
Share Premium	1,500	1,200	
Revaluation reserve	800	200	
Retained Earnings	3,900	1,430	
	9 200	5 230	
Non Current Liabilities:			
12% Loan Notes	900	2,500	
Deferred Tax	250	150	1,150
	2,650		
Current Liabilities:			
Trade and other Payables	1,810	1,370	
Current Tax	660	540	
2,470	1,910		
	12,820	9,790	

Additional information:

1. Land and buildings were revalued to their fair value in the year. Plant that had cost of K900 with a carrying amount of K420 was sold at a profit of K150.

2. Depreciation in the year was K450 on buildings and K80 on plant and equipment.

3. The amount owing for interest at the start of the year was K130 and that at the end of the year K250. These amounts have been included in the totals for Trade and Other Payables.

4. During the year, shares were issued at a premium. The company also paid an interim dividend during the year.

Required:

Prepare Lucina's statement of cash flows for the year ended 31 December 2024, in accordance with the requirements of IAS 7 *Statements of Cash Flows*, using the direct method.

[Total: 20 Marks]

QUESTION FIVE

AB Co. has employed trainee accountants to provide them with necessary industry experience. When a trial balance was extracted by one of them, it failed to agree, and a suspense account was opened for the difference. The trial balance totals were:

Debit	542,600
Credit	589,200

Upon reviewing the accounts, the following errors were discovered:

(1) A purchase of goods for K10,000 was recorded as K20,000 on the debit side of the purchases account.

(2) A cash sale of K3,000 was not posted to the general ledger.

(3) A purchase of machinery for K50,000 was correctly recorded in the bank account, but posted to machinery account as K5,000.

(4) A cheque for K78,400 paid for the purchase of a motor car was debited to the motor vehicle account as K87,400.

(5) Sales returns K560 were mistakenly debited to purchases returns account. The amount was correctly recorded in the bank account.

(6) Goods with a cost of K12,000 and sales value of K15,000, taken from inventory by the proprietor had been recorded on the credit side of the drawings account.

(7) Motor expenses paid K2,500 was recorded in the wages and salaries account.

(8) K3,400 paid to a supplier was recorded twice in the payables control account.

Required:

(a) Prepare AB Co.'s journal entries to correct the above errors, clearly stating the nature of the error in the narrations. (12 marks)

(b) Prepare AB Co.'s suspense account to eliminate the amount in suspense. (3 marks)

(c) Briefly explain, *using examples*, how the errors below could cause a trial balance not to balance.

(i) Part transposition. (2½ marks)

(ii) Single entry. (2½ marks)

[Total: 20 Marks]

QUESTION SIX

Child Care Plc prepared a setup of accounts for the first time after incorporation from sole trading. A number of accruals that arise from application of accounting standards were omitted. Further, some assets and liabilities were not reported at their recoverable amounts. There is need, therefore, to revise the amounts in the financial statements and recalculate the profit reportable.

Child Care Plc:

STATEMENT OF FINANCIAL POSITION AS AT 31 DECEMBER 2024

	K000	K000
Non Current Assets:		
Land and buildings	135,000	
Plant and equipment	84,000	
Motor vehicles	12,000	
Fixed deposit bank accounts	6,000	
		237,000
Current Assets:		
Inventories	25,300	
Trade receivables	24,920	
Prepayments and accrued income	3,600	
Cash and bank balances	7,250	
		61,070
		298,070
Equity:		
K1.00 Ordinary shares	50,000	
8% Redeemable preference shares	15,000	
Share premium	20,000	
Retained earnings	126,020	
		211,020
Non Current Liabilities:		
Income Tax liability	6,400	
12% Loan Notes	30,000	
		36,400
Current Liabilities:		
Trade payables	36,780	
Suspense account	2,000	
Provision for warranties	6,720	
Accrued expenses	5,150	
		50,650
		298,070

Additional Information

(1) On 1 October 2024, the company made a right issue of 2 shares for every 5 shares held for a price of K3.50 and three months later made a bonus issue of 1 share for every 10 held.

(2) The amount of income tax liability payable nine months later is K4,400. The amount reported includes a deferred tax liability balance.

(3) The interest on the fixed deposit bank account of 8% was credited by the bank in their books but has not been recognized in the general ledger.

(4) During the year, the company disposed of one vehicle that cost K6,000 three (3) years ago for K2,000. The cash received was credited to the suspense account. The calculation of depreciation at the rate of 20% per annum on a reducing balance basis for the year did not take into account this disposal.

(5) The preference shares are redeemable at par in 2028. Loan notes are repayable in the coming 12 months. The preference dividend and interest on loan notes are paid annually but have not yet been accrued.

(6) The provision for warranties was not revised as the information available at the time of preparing the draft financial statements was not complete.

	Sales Volume K'000	**%age**
No claims	120,000	0
Minor claims	50,000	2%
Major claims	30,000	5%
	200,000	

The profit for the year was reported as K46,020. The balance of the retained earnings are the profits made before incorporation.

Required:

Prepare for Child Care Plc:

(a) The adjusted net profit, taking into account the stated accruals and application of accounting standards. (5½ marks)

(b) The statement of changes in equity for the year ended 31 December 2024. (4 marks)

(c) The statement of financial position as at 31 December 2024. (10½ marks)

[Total: 20 Marks]

END OF PAPER

CA 1.1 FINANCIAL REPORTING

SUGGESTED SOLUTIONS

SOLUTION ONE

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

SOLUTION TWO

(a) **ABC partnership appropriation account for the year ended 31 March 2025**

	K	K
Net profit after expenses and before interest on loan		780,000
Interest on loan from Bob (6%*16,000*9/12)		(720)
		779,280
Add interest on drawings:		
Alice	860	
Bob	700	
Chanda	500	2,060
		781,340
Less:		
Interest on capital Alice (7% x 220,000)		(15,400)
Bob (7% x 200,000)		(14,000)
Chanda (7% x 70,000)		(4,900)
Salary (6/12x20,000)		(10,000)
Residual profit		737,040
Share of residual profit:		
Alice (2/5*737,040)	294,816	
Bob (2/5*737,040)	294,816	
Chanda (1/5*737,040)	147,408	(737,040)
		0

(b) **Partners current accounts**

Details	**Alice**	**Bob**	**Chanda**	**Details**	**Alice**	**Bob**	**Chanda**
	K	K	K		K	K	K
Balances b/f			400	Balances b/f	60,000	63,000	
Drawings	15,600	13,000	7,000	Int. on capital	15,400	14,000	4,900
Int. on drawings	860	700	500	Salary	10,000		
Balances c/f	363,756	358,836	144,408	Int. on loan		720	
				Share of profit	294,816	294,816	147,408
	380,216	372,536	152,308		380,216	372,536	152,308

SOLUTION THREE

(a) **1. Key Characteristics:**

- **Public Sector Accounting:**

- **Focus on Accountability:** Public sector accounting emphasizes accountability to the public and stakeholders. It aims to provide transparency in how public funds are utilized.
- **Budgetary Control:** Public entities operate within budgetary constraints, making budgeting a crucial aspect of their accounting systems. Financial performance is often evaluated against approved budgets.
- **Fund Accounting:** Public sector organizations often use fund accounting, which segregates resources into various funds based on their intended purpose (e.g., general fund, special revenue funds, capital projects).
- **Non-Profit Orientation:** Many public sector entities are not profit-driven, so their accounting systems prioritize service delivery and social outcomes over financial profit.

- **Private Sector Accounting:**

- **Focus on Profitability:** The primary goal of private sector accounting is to maximize profitability and provide relevant financial information to investors, management, and other stakeholders.
- **Accrual Accounting:** Private sector organizations generally adopt accrual accounting, recognizing revenue and expenses when they are incurred, regardless of cash flow.
- **Financial Statements:** Emphasis is placed on producing financial statements (income statement, statement of financial position, cash flow statement) that adhere to generally accepted accounting principles (GAAPs) or International Financial Reporting Standards (IFRSs).
- **Market Orientation:** Private sector accounting aligns closely with market demands and competition, with a focus on financial performance metrics.

2. Objectives:

- **Public Sector:**

- Ensure accountability and transparency in the use of public resources.
- Provide information for decision-making regarding public policies and resource allocation.
- Evaluate the efficiency and effectiveness of public programs.

- **Private Sector:**

- Provide stakeholders with accurate financial information to assess the company's financial health and performance.
- Support strategic decision-making for business operations and investments.
- Facilitate compliance with regulatory requirements and investor expectations.

3. Regulatory Frameworks:

- **Public Sector:**

- Governed by standards such as the International Public Sector Accounting Standards (IPSASs).
- Subject to regulations that vary by country and often include oversight by governmental bodies to ensure compliance with budgetary and reporting requirements.

- **Private Sector:**

- Governed by frameworks such as IFRSs in many other countries.
- Subject to oversight by regulatory bodies such as the Securities and Exchange Commission (SEC) to protect investors and ensure accurate financial reporting.

(b) **NN Co's statement of changes in equity for the year ended 31 December 2024**

Details	Share capital K'000	Share premium K'000	Revaluation reserve K'000	General reserve K'000	Retained earnings K'000	Total K'000
Share issue (W1)	70,000	111,000				181,000
Profit after tax (W4)					632,000	632,000
Revaluation surplus (W3)			150,000			150,000
Dividends paid (W2)					(29,000)	(29,000)
Transfer to G. reserve				80,000	(80,000)	-
	70,000	111,000	150,000	80,000	523,000	934,000

WORKINGS:

1. Issue of shares:

	Share capital (K)	Share premium (K)
Directors (40,000 shares x K2.50)	40,000	60,000
Family members (30,000 x K2.70)	30,000	51,000
	70,000	111,000

2. Dividends:

	K
Declared to directors (K0.50 x 40,000 shares)	20,000
Paid to family members (K0.30 x 30,000 shares	9,000
Total	29,000

3. Revaluation of land

	K
Carrying amount at 31/12/2024	500,000
Revaluation surplus	150,000
Revalued amount	650,000

4. Profit after tax

	K
Profit before tax	700,000
Less income tax	(68,000)
Profit after tax	632,000

SOLUTION FOUR

Lucina

Statement of Cashflows for the year ended 31 December 2024:

Cash flows from Operating Activities:

	K	K
Receipts from customers (W6)	25,750	
Payments to suppliers ** (W7(b))	(7,590)	
Payments for expenses	(8,540)	
	9,620	
Non-cash Items:		
Depreciation - Buildings	450	
Depreciation - Plant	280	
Profit on Disposal	(150)	
	10,200	
Interest Paid (W8)	(680)	
Income tax paid (W9)	(2,180)	
Net cash flow from operating activities		7,340

Cash flows from Investing Activities:

	K	K
Purchase of Buildings (W1)	(1,810)	
Purchases of plant (W2)	(2,265)	
Sales proceeds of plant	570	
Investment income dividend/interest received	350	
		(3,155)

Cash flows from Financing Activities:

	K	K
Issues of share capital (3,000 - 2,400)	600	
Increase in share premium	300	
Loan repayment (2,500 -900)	(1,600)	
Dividend paid (W5)	(3,140)	
	(3,840)	
		345
Cash opening balance		1,850
Cash closing balance		2,195

**The figures are after deducting balances for interest owing of K 130 and K 250 at the start and end of year respectively.

W1 LAND AND BUILDINGS

	K		K
Balance b/d	2,520		
Revaluation	600	Depreciation	450
Bank *	1,810	Balance c/d	4,480
	4,930		4,930

W2 REVALUATION ACCOUNT -Land & Buildings

	K		K
		Balance b/f	200
		Land & Buildings	600
Balance c/d	800		
	800		800

W3 PLANT & MACHINERY

	K		K
Balance b/d	1,275	Disposal	420
Bank *	2,265	Depreciation P/L	280
		Balance c/d	2,840
	3,540		3,540

W4 PLANT DISPOSAL

	K		K
Plant -Carry amount	420	Cash / Bank	570
Profit & Loss -Profit	150		
	570		570

W5 RETAINED EARNINGS

	K		K
Dividend paid	3,140	Balance b/c	1,430
Balance c/d	3,900	Current Year Profit	5,610
	7,040		7,040

W6. Receipts from customers:

Sales revenue	26,200
Payments for expenses	1,585
	27,785
Investment income dividend/interest received	(2,035)
Cash	25,750

W7. Payments to suppliers:

(a) Inventory account entries

Cost of Sales	9,200
Closing balance	1,270
	10,470
Opening balance	(2,560)
Purchases	7,910

(b) Trade Payables account entries

Purchases	7,910
Opening balance (1,370 – 130)	1,240
	9,150
Closing balance (1,810 – 250)	(1,560)
Cash	7,590

W8. Interest due account:

Charge to SPL	800
Opening balance	130
	930
Closing balance	(250)
Cash	680

W9. Income Tax account:

Charge to SPL	2,400
Opening balance	540
	2,940
Increase in DT (250 - 150)	(100)
Closing balance	(660)
Cash	2,180

10. Retained Earnings account (for Dividend paid):

Charge to SPL	5,610
Opening balance	1,430
	7,040
Closing balance	(3,900)
Cash	3,140

NOTE:

Operating expenses account need not be written since it does not have an opening and closing balance. The amount charged to the SPL is equivalent to the amount paid, save that it has to be adjusted with the amounts of depreciation and profit on disposal.

SOLUTION FIVE

(a) Journal entries

	Account	Debit (K)	Credit (K)
1.	Suspense	10,000	
	Purchases		10,000
	Being overcast in purchases		
2.	Bank	3,000	
	Sales		3,000
	Being error of omission		
3.	Machinery	45,000	
	Suspense		45,000
	Being undercast in machinery		
4.	Suspense	9,000	
	M vehicles		9,000
	Being error of transposition		
5.	Sales returns	560	
	Purchases returns		560
	Being error of commission		
6.	Drawings	24,000	
	Suspense		24,000
	Being error of complete reversal		
7.	Motor expenses	2,500	
	Wages and salaries		2,500
	Being error of commission		
8.	Suspense	3,400	
	Payables control		3,400
	Being overcast in payables control		

(b)SUSPENSE ACCOUNT

	K		K
Difference in books	46,600		45,000
Purchases	10,000		24,000
Motor vehicles	9,000		
Payables control	3,400		
	69,000		**69,000**

(c) Brief explanation of how the following errors may affect the trial balance

(i) Part transposition

This error occurs when one part of double entry is recorded in a correct or wrong account with the digits in the amount interchanged (transposed). For example, a cash sale of K780 being correctly recorded in the bank account but recorded in the sales account as K807.

(ii) Single entry

This error occurs where only one correct entry is made either on the debit or credit without a corresponding opposite entry. In other words, only one part of double entry is made correctly. For example, rent paid by cheque is credited to bank account only (with no other entry made to the debit of rent account.

SOLUTION SIX

(a) Child Care Plc:

Calculation of Revised Profit

Per draft financial statements	46,020
Reversal of provision for warranties	4,220
Fixed Deposit interest 6,000 x 8%	480
Excess depreciation charge (3,000 – 2386)	614
Interest on Loan (30,000 x 0.12)	(3,600)
Preference dividend (15,000 x 0.08)	(1,200)
Loss on Disposal	(1,072)
Revised profit	45,462

(b) Child Care Plc:

Statement of Changes in Equity

	Ordinary Shares	**Share Premium**	**Retain Earnings**	**Total**
	K	**K**	**K**	**K**
Per Draft accounts	50,000	20,000	80,000	150,000
Revised Profit for the year			45,462	45,462
Issue of shares -Rights issue	20,000	50,000		70,000
Bonus issue of shares	7,000	(7,000)		Nil
Closing balances	77,000	63,000	125,462	265,462

NOTE: Retained Earnings (126,020-46,020=80,000)

(c) Child Care Plc:

STATEMENT OF FINANCIAL POSITION AS AT 30 DECEMBER 2024.

	K'000	**K'000**
Non Current Assets:		
Land and buildings	135,000	
Plant and equipment	84,000	
Motor vehicles	9,542	
Fixed deposit bank accounts	6,000	
		234,542
Current Assets:		
Inventories	25,300	
Trade receivables	24,920	
Prepayments and accrued income	3,600	
Cash and bank balances (7,250+70,000+480)	77,730	

		131,550
		366,092
Equity:		
K1.00 Ordinary shares	77,000	
Share Premium	63,000	
Retained Earnings	125,462	
	265,462	
Non Current Liabilities:		
8% Redeemable Preference Shares	15,000	
Deferred Tax liability	2,000	
		17,000
Current Liabilities:		
12% Loan notes	30,000	
Trade payables	36,780	
Income tax liability (6,400-2,000 DT)	4,400	
Provision for warranties	2,500	
Accrued expenses (5,150+3,600+1,200)	9,950	
		83,630
		366,092

Workings

(1) Rights issue of shares:

Existing number of Shares: K50 000/K1.00	=	50,000 shares
Rights issue 50,000 x 2/5	=	20,000 shares
Valuation at Par K1.00 x 20,000	=	K20,000
Share premium K2.50 x 20,000	=	K50,000
Total cash received K20,000 + 50,000	=	K70,000

(2) Bonus issue of shares

Number of shares after rights issue (50,000 + 20,000)	=	70,000 shares
Bonus issue = 70,000/10	=	7,000 shares
Valuation at par (K1.00 x 7,000)	=	K7,000

(3) Revised Provision for warranties:

Minor repairs (50,000 x 0.02)	1,000
Major repairs 30,000 x 0.05	1,500
Revised provision	2,500
Opening balance	(6,720)
Reversal of provision	(4,220)

(4) Recalculation of depreciation on motor vehicles:

Depreciation K 12 000 x 20 / 80	=	K3,000
Carrying amount before depreciation 12,000 + 3,000	=	K15,000
First depreciation charge 0.20 x 15,000	=	K3,000
Adjusted carrying amount after disposal K15,000 - K3,072	=	K11,928
Correct depreciation charge 0.20 x K11,928	=	K2,386
Adjustment to profit K3,000 - K2,386	=	K614

(5) Calculation of depreciation on disposed of asset

	Cost	**Dep'n**	**Total**
	K	K	K
Acquisition	6,000		
First year Deprec 20% x 6,000	(1,200)	1,200	
Carry amount	4,800		
Second year Deprec 20% x 4,800	(960)	960	
Carry amount	3,840		
Second year Deprec 20% x 4,800	(768)	768	
Amounts/totals	3,072	2,928	6,000

(6) MOTOR VEHICLE ACCOUNT

	K		K
Balance b/d	12,000	Disposal	3,072
PL -Reversal of excess dep'n	614	Balance c/d	9,542
	12,614		12,614

(7) MOTOR VEHICLE DISPOSAL ACCOUNT

	K		K
Plant -Carry amount	3,072	Cash / Bank	2,000
		Profit & Loss -Profit	1,072
	3,072		3,072

CA ZAMBIA PROGRAMME EXAMINATIONS

CA CERTIFICATE IN ACCOUNTANCY

CA 1.2 BUSINESS STATISTICS

WEDNESDAY 10 DECEMBER 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 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 What is a parameter?

A. A sample characteristic.

B. A population characteristic.

C. An unknown parameter.

D. A normally distributed observation.

(2 marks)

1.2 An automobile manufacturer claims data concerning the sales of six (6) of its deals in the last week of 2023. The results indicate that the standard deviation of their sales is equal to 5 automobiles. If this is so, the variance of the sales is equal to;

A. 5

B. $\sqrt{5}$

C. 25

D. $\frac{1}{\sqrt{5}}$

(2 marks)

1.3 Which of the following is calculated based on the extreme values of items:

A. Mean.

B. Mode.

C. Range.

D. Median.

(2 marks)

1.4 Find the median class of the following grouped data:

Result	**Frequency**
0 to less 15	5
15 to less 30	10
30 to less 45	30
45 to less 60	15

A. 0 to less 15
B. 15 to less 30
C. 30 to less 45
D. 45 to less 60

(2 marks)

1.5 Which of the following variables can be classified as continuous data:

A. The total number of students sitting for an exam.
B. The count of value of new monetary notes introduced.
C. The number of patients attended to per day.
D. The mean number of rooms of houses in a residential.

(2 marks)

1.6 The frequency distribution of the hourly wages of 150 employees of a glass factory is as follows:

Wage rate (K)	14 – 16	16 – 18	18 – 20	20 – 22	22 – 24
Number of workers	30	30	30	30	30

What is the median wage rate?

A. 15
B. 18
C. 19
D. 34

(2 marks)

1.7 The enrolment in the army involved a qualitative general knowledge test with the following scores:

56 37 35 32 54 58 27 32 44 47

Find the range for the data.

A. 27

B. 47

C. 58

D. 31

(2 marks)

1.8 Half of the difference between upper and lower quartiles is called?

A. Interquartile range.

B. Quartile deviation.

C. Mean deviation.

D. Standard deviation.

(2 marks)

1.9 Two (2) events A and B have probabilities of occurrences 0.4 and 0.7 respectively. Find the probability $P(A \cap B)$ if conditional probability $P(A/B) = 0.3$.

A. 0.28

B. 0.12

C. 0.18

D. 0.21

(2 marks)

1.10 The shape of the normal curve depends upon the value of:

A. Standard deviation.

B. Lower quartile.

C. Mean deviation.

D. Quartile deviation.

(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) Define qualitative and quantitative data stating clearly their difference. (4 marks)

(b) Classify the following data as discrete or continuous.

(i) The count of people taking place in an aptitude test. (1 mark)

(ii) The time taken to complete a series of assignments. (1 mark)

(iii) The number of items receiving a tax waiver by the government. (1 mark)

(iv) The amount of money required to be paid by candidates planning to contest an election. (1 mark)

(v) The make of a car owned by an individual. (1 mark)

(vi) The number of candidates obtaining distinctions in all subjects in the high school examination. (1 mark)

(c) A Time series record of annual tons of maize collected by FRA is shown in the table below.

Year	**Maze collection (thousand tons) Quarter**			
	1	**2**	**3**	**4**
2020	80	110	120	90
2021	95	80	100	90
2022	80	130	110	100
2023	93	150	120	80

Calculate the four (4) quarterly moving average of the quantities of maize collected.

(10 marks)

[Total: 20 Marks]

QUESTION THREE

A company would like to predict what the sales of their new shops are going to be. The yearly sales of nine (9) of their existing shops are known and the sizes of the population of the towns in which each shop is sited are found. The size of the towns, (x) in thousands, and the sales, (y) in thousands of kwacha, are given in the table below.

Town size (x) (in thousands)	18	26	28	36	48	52	54	60	50
Sales (y) (in thousand)	48	62	53	65	72	70	73	76	50

Required:

(a) Find the least squares line for the data. (11 marks)

(b) Predict the sales volume, y, for a given town size of 79. (2 marks)

(c) Find the coefficient of correlation. (4 marks)

(d) Find the coefficient of determination and interpret its value. (3 marks)

[Total: 20 Marks]

QUESTION FOUR

Given below is a frequency of daily incomes of workers (‘000’ kwachas)

Incomes	41 – 45	46 – 50	51 – 55	56 – 60	61 – 65	66 – 70	71 – 75	76 – 80	81 – 85
No. workers	3	6	13	15	11	19	5	3	4

Required:

(a) Calculate the range. (2 marks)

(b) Calculate the quartiles. (12 marks)

(c) Find the interquartile range. (4 marks)

(d) Find the quartile deviation. (2 marks)

[Total: 20 Marks]

QUESTION FIVE

(a) The content in milligrams of vitamin C in a liter bottle of mazoe juice can be modelled by a normal distribution with a mean of 30 and a standard deviation of 1.5.

Required:

(i) Determine the probability that, for a bottle chosen at random, the vitamin content is less than 28mg. (3 marks)

(ii) Find to the nearest milligram, the value of the mean required to ensure that the percentage of bottles with a vitamin C content of less than 28mg is 4.5. (4 marks)

(iii) Determine the probability that, for a bottle chosen at random, the vitamin content is between 29.2mg and 31.3mg. (3 marks)

(b) There are two (2) adjacent apartment housing developments, Zambezi and Luangwa, which contain middle and upper – income tenants in the following proportions:

Apartments	Middle	Upper	Total
Zambezi	30	15	45
Luangwa	20	35	55
Total	50	50	100

Tenants complain that one of the tenants must be an 'Armature radio operator', because there is a tremendous disturbance in nightly broadcasts.

Required:

(i) What is the probability that the armature operator lives in Zambezi? (3 marks)

(ii) If the operator is of middle income, what is the probability that he is from Luangwa? (3 marks)

(iii) What is the probability of the person being either middle income or living in Luangwa? (4 marks)

[Total: 20 Marks]

QUESTION SIX

(a) A bank Manager's office has studied the waiting times for customers who arrive at the bank with a request for cash withdrawals service. The following data was collected over a 1 – month period (the waiting times are in minutes).

5	18	29	42	50	61	8	20	33	43	54	63
10	21	35	46	56	67	11	25	39	48	58	69
14											

(i) Calculate the range. (1 mark)

(ii) Calculate the mean deviation. (4 marks)

(iii) Calculate the variance. (5 marks)

(iv) Calculate the standard deviation. (1 mark)

(v) Calculate the coefficient of variation. (2 marks)

(b) Explain the term 'measure of dispersion'. (1 mark)

(c) State briefly two (2) advantages of using each of the following measures of dispersion.

(i) The range. (2 marks)

(ii) Mean deviation. (2 marks)

(iii) Standard deviation. (2 marks)

[Total: 20 Marks]

END OF PAPER

CA 1.2 BUSINESS STATISTICS

SUGGESTED SOLUTIONS

SOLUTION ONE

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

SOLUTION TWO

(a) Quantitative data: this is data represented numerically, including anything that can be counted, measured, or given a numerical value.

Qualitative data: Descriptive information that focuses on concepts rather than numbers and statistics

(b) (i) discrete
(ii) continuous data
(iii) discrete
(iv) continuous
(v) discrete
(vi) discrete

(c) Time Series

QUARTERS (T)	QUANTITIES (Y)	FOUR MOVING TOTALS	QUARTERLY MOVING AVERAGE ($\hat{Y}$)
1	80		
2	110		
3	120	400	100
4	90	415	103.75
5	95	385	96.25
6	80	365	91.25
7	100	365	91.25
8	90	350	87.5
9	80	400	100
10	130	410	102.5
11	110	420	105
12	100	433	108.25
13	93	453	113.25
14	150	463	115.75
15	120	443	
16	80		

SOLUTION THREE

(a)

x	y	x^2	y^2	xy
18	48	324	2304	864
26	62	676	3844	1612
28	53	784	2809	1484
36	65	1296	4225	2340
48	72	2304	5184	3456
52	70	2704	4900	3640
54	73	2916	5329	3942
60	76	3600	5776	4560
50	50	2500	2500	2500
$\sum x = 372$	$\sum y = 569$	$\sum x^2 = 17,104$	$\sum y^2 = 36,871$	$\sum xy = 24,398$

$$\bar{x} = \frac{\sum x}{n} = \frac{372}{9} = 41.3; \quad \bar{y} = \frac{\sum y}{n} = \frac{569}{9} = 63.2$$

$$SS_{xx} = \sum x^2 - \frac{\left(\sum x\right)^2}{n} = 17,104 - \frac{372^2}{9} = 1,728$$

$$SS_{xy} = \sum xy - \frac{\left(\sum x\right)\left(\sum y\right)}{n} = 24,398 - \frac{(372)(569)}{9} = 879.3$$

$$SS_{yy} = \sum y^2 - \frac{\left(\sum y\right)^2}{n} = 36,871 - \frac{569^2}{9} = 897.6$$

$$\hat{\beta}_1 = \frac{SS_{xy}}{SS_{xx}} = \frac{879.3}{1,728} = 0.51 \qquad \hat{\beta}_0 = \bar{y} - \hat{\beta}_1\bar{x} = 63.2 - 0.51(41.3) = 42.14$$

Therefore, the least squares line for the data is

$$\hat{y} = \hat{\beta}_0 + \hat{\beta}_1 x$$
$$\hat{y} = 42.14 + 0.51x$$

(b) $y = 42.14 + 0.51x$

$$y = 42.14 + 0.51(79)$$
$$y = 42.14 + 40.29$$
$$y = \text{K}82.43$$

(c) The coefficient of correlation is given by

$$r = \frac{SS_{xy}}{\sqrt{SS_{xx}SS_{yy}}} = \frac{879.3}{\sqrt{1,728 \times 897.6}} = 0.71$$

(d) The coefficient of determination is given by

$$r^2 = 0.71^2 = 0.5041$$

This means 50.41% of the data fit the regression model or 50.41% of the variation in the sales is predicted from the town size.

SOLUTION FOUR

Incomes ('000' Kwachas)	No. of workers(f)	Cumulative frequency (F)
41 – 45	3	3
46 – 50	6	9
51 – 55	13	22
56 – 60	15	37
61 – 65	11	48
66 – 70	19	67
71 – 75	5	72
76 – 80	3	75
81 – 85	5	80

(a) $Range = Maximum - Minimum = 85 - 41 = 44$

(b) $First\ Quartile = L + \frac{\left(0.25N - F_{i-1}\right)}{f_i} \times C$

Where $L = lower\ class\ boundary$

$$F_{i-1} = Cumulative\ frequency\ below\ the\ 1st\ quartile\ class\ interval = 9$$

$$f_i = frequency\ below\ the\ 1st\ quartile\ class\ interval = 13$$

$$C = class\ width = 4$$

The position of the first quartile is $0.25N = 0.25 \times (80) = 20$

$$Q_1 = 50.5 + \frac{(20 - 9)}{13} \times 4 = 50.5 + \frac{11}{13} \times 4 \approx 53.88$$

$$Q_2 = second\ quartile = median$$

$$Q_2 = 60.5 + \frac{(40 - 37)}{11} \times 4 = 60.5 + \frac{3}{11} \times 4 \approx 61.59$$

Position of $Q_3 = 0.75(80) = 60$

$$Q_3 = 65.5 + \frac{(60 - 48)}{19} \times 4 = 65.5 + \frac{12}{19} \times 4 \approx 68.03$$

(c) $Interquartile\ range = Q_3 - Q_1 = 68.03 - 53.88 = 14.15$

(d) Quartile deviation is equal to the semi interquartile range

$$QD = \frac{1}{2}\left(Q_3 - Q_1\right) = \frac{1}{2}(68.03 - 53.88) = \frac{14.15}{2} = 7.075$$

SOLUTION FIVE

(a) We have the normal distribution with $\mu = 30\ and\ \sigma = 1.5$. Let X be a normal random variable standing for content in milligrams of vitamin C.

(i) $P(X < 28) = P(Z < \frac{28 - 30}{1.5}) = P(Z < -1.33) = 0.5 - 0.4082 = 0.0918$

(ii) We look for Z – Score corresponding to the area 0.045 to the left of this point.

$$-1.7 = \frac{X - 30}{1.5}$$

$$-2.55 = X - 30, \qquad Therefore, \qquad X = 27.45$$

(iii) $P(29.2 < X < 31.3) = P(\frac{29.2 - 30}{1.5} < Z < \frac{31.3 - 30}{1.5}) = P(-0.5 < Z < .87)$

$$= 0.1915 + 0.3078 = 0.4993$$

(b) We construct a contingency table

Apartments	Middle	Upper	Total
Zambezi	30	15	45
Luangwa	20	35	55
Total	50	50	100

Let Z be the event armature lives in Zambezi apartment and L in Luangwa apartment. Also $M\ and\ U$ be the event one is from the middle and upper income tenants respectively.

(i) $P(Z) = \frac{45}{100} = .45$

(ii) $P(M|Z) = \frac{P(M \cap Z)}{P(Z)} = \frac{\frac{30}{100}}{\frac{45}{100}} = \frac{30}{45} \approx 0.6667$

(iii) $P(L|M) = \frac{P(L \cap M)}{P(M)} = \frac{\frac{20}{100}}{\frac{50}{100}} = \frac{20}{50} = 0.4$

(iv) $P(M \cup L) = P(M) + P(L) - P(M \cap L) = \frac{50}{100} + \frac{55}{100} - \frac{20}{100} = \frac{85}{100} = 0.85$

SOLUTION SIX

(a) (i) The range is the difference between the highest and the lowest value.

$\therefore$ Range $=$ Highest value – lowest value

$= 69 - 5 = 64$

(ii)

x	$x-37$	$\lvert x-37\rvert$	$(x-37)^2$
5	-32	32	1024
8	-29	29	841
10	-27	27	729
11	-26	26	676
14	-23	23	529
18	-19	19	361
20	-17	17	289
21	-16	16	256
25	-12	12	144
29	-8	8	64
33	-4	4	16
35	-2	2	4
39	2	2	4
42	5	5	25
43	6	6	36
46	9	9	81
48	11	11	121
50	13	13	169
54	17	17	289
56	19	19	361
58	21	21	441

61	24	24	576
63	26	26	676
67	30	30	900
69	32	32	1024
$\sum x = 925$		$\sum \lvert x-\bar{x} \rvert = 430$	$\sum (x-\bar{x})^2 = 9636$

$$\bar{x} = \frac{\sum x}{n} = \frac{925}{25} = 37$$

$$\text{Mean Deviation} = \frac{\sum |x-\bar{x}|}{n} = \frac{\sum |x-37|}{25} = \frac{430}{25} = 17.2$$

(iii) Variance,

$$S^2 = \frac{\sum (x-\bar{x})^2}{n-1} = \frac{9636}{25-1} = 401.5$$

(iv) Standard Deviation $= \sqrt{Variance}$

$$\therefore S = \sqrt{401.5} = 20.04$$

(v) Coefficient of variation,

$$C.V = \frac{S}{x} \times 100\% = \frac{20.04}{37} \times 100\% = 54.16\%$$

(b) Dispersion (also known as scatter, spread or variation) measures the extent to which the items vary from some central value.

(c) (i) It is easy to understand

- It is easy to calculate
- It does not require any special knowledge
- It takes minimum time to calculate the value of range

(ii)

- It is easy to understand
- It is easy to calculate as compared to standard deviation
- It is based on all the items of the series
- It is less affected by extreme values than the standard deviation
- It is useful for small samples when no detailed analysis is required

(iv)

- It is based on all items of the distribution
- It is amenable to algebraic treatment since actual $\pm$ signs of deviations are taken into consideration
- It is least affected by fluctuation of sampling
- It facilitates the calculation of coefficient of variation which is used to compare the variability of two or more distributions
- It facilitates the calculation of other statistical measures like skewness, correlation e.t.c.
- It provides a unit of measurement for the normal distribution

CA ZAMBIA PROGRAMME EXAMINATIONS

CA CERTIFICATE IN ACCOUNTANCY

CA 1.3: BUSINESS ECONOMICS

TUESDAY 9 DECEMBER 2025

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

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   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.

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

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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 If the Marginal Propensity to Consume (MPC) is 0.80 and investment increases by K50 million, the total change in output will be:

A. K40 million.

B. K250 million.

C. K400 million.

D. K500 million.

(2 marks)

1.2 A positive income elasticity of demand greater than one indicates the good is:

A. A necessity.

B. A private good.

C. An inferior good.

D. A luxury.

(2 marks)

1.3 A black market is most likely to arise when:

A. Prices are set at equilibrium.

B. There are no price controls.

C. The Government eliminates tariffs on luxuries.

D. Price ceilings are below the equilibrium price.

(2 marks)

1.4 Allocative inefficiency occurs in a market when:

A. Price equals the marginal cost of the firm.

B. Resources distribution is based on preferences.

C. Social welfare is not maximized in the society.

D. Marginal social benefit equals marginal social cost.

(2 marks)

1.5 In a perfectly competitive market, which of the following determines the firm's equilibrium output?

A. Matching their marginal cost to the market price.

B. Engaging in aggressive price wars with one another.

C. Advertising their products heavily on the market.

D. Influencing consumer preferences and tastes.

(2 marks)

1.6 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)

1.7 Which of the following best explains the reason for the introduction of tradable pollution permits?

A. Increase the level of emissions.

B. Reduce pollution through market incentives.

C. Create an oversupply of pollution rights.

D. Tax companies directly for pollution.

(2 marks)

1.8 Which phase of the business cycle is typically characterized by rising unemployment and reduced economic activity?

A. Expansion.

B. Peak.

C. Recession.

D. Recovery.

(2 marks)

1.9 Which of the following is TRUE in the short run. As output increases……….

A. AVC falls.

B. ATC falls.

C. AFC falls.

D. MC falls.

(2 marks)

1.10. The sum of the balance of Payment accounts must always be zero because……….

A. Current Account is equal to Capital Account.

B. Exports are equal to imports.

C. Every debit entry must have a credit entry.

D. Invisible trade is equal to visible trade.

(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

<u>QUESTION TWO</u>

Assume the wheat industry is a perfectly competitive market, where numerous small farms produce an identical product. No single farmer can influence the market price, as all firms are price takers. In the long run, free entry and exit ensure that firms earn only normal profits. Farmers face identical cost structures due to similar technology and resources. The cost function for a representative farm is given as: Average cost = 6Q+13, and MC = 12Q + 13 which can be assumed to be the cost functions faced by each firm in the industry. A firm's cost curves is associated with returns to scale as well as economies of scale.

Required:

(a) Given the above cost function:

(i) Derive the equation for total cost. (2 marks)

(ii) Given output Q = 30. Calculate total cost, average cost and marginal cost. (6 marks)

(iii) If a customer wants to buy an additional bag of wheat for the price of 350. Would the farmer sell the wheat? (2 marks)

(b) Explain how free entry and exit affect long run profitability of firms. (2 marks)

(c) Describe the output decision if the price falls below the average cost. (4 marks)

(d) Outline any two (2) advantages of perfectly competitive market structure. (4 marks)

[Total: 20 Marks]

QUESTION THREE

Perfectly competitive markets and monopoly markets are two (2) extremes at either end of a market spectrum. On one hand, perfect competition is characterized by a very large number of buyers and sellers, each too insignificant to affect market conditions. On the other hand, monopoly is characterized by a single firm controlling the entire market or at least the largest market share. Firms will maximise profits where the marginal revenue = the marginal cost. Total revenue between the two (2) market structures differs as a result of the differences in characteristics. The table below shows hypothetical firms operating under conditions of perfect competition and monopoly.

Perfect competition (Firm)				**Monopoly (Firm)**			
Quantity	**Total revenue**	**Average revenue**	**Marginal revenue**	**Quantity**	**Total revenue**	**Average revenue**	**Marginal revenue**
1	20	20	20	1	20	20	20
2	40	20	20	2	36	18	16
3	60	20	20	3	48	16	12
4	80	20	20	4	56	14	8
5	100	20	20	5	60	12	4
6	120	20	20	6	60	10	0

As can be seen from the table above, a perfectly competitive can sell as much as it can at the market price; whereas, the monopolist will have to reduce the price in order to sell more.

(a) Define the term market structure. (2 marks)

(b) List the other two (2) market structures not mentioned in the scenario above. (2 marks)

(c) Describe any two (2) characteristics of perfect competition and monopoly not mentioned above. (8 marks)

(d) Use separate diagrams to depict the average revenue and marginal revenue under perfect competition and monopoly. Explain your diagrams. (8 marks)

[Total: 20 Marks]

<u>QUESTION FOUR</u>

Money is a fundamental aspect of modern economies, facilitating trade, investment, and economic stability. Before money existed, people relied on the barter system, where goods and services were exchanged directly. However, bartering had limitations, such as the double coincidence of wants. To solve these problems, societies introduced commodity money, such as gold, silver, and salt, which had intrinsic value. Over time, this gave way to paper money, issued by Governments and backed by national reserves. The central bank has authority to effectively control the amount of money circulating in the economy through the use of both fiscal policy and monetary policy. Assume an economy has a money supply of $500 billion and a nominal GDP of $2,000 billion. The velocity of money is 4. Inflation is currently at 3%, and the central bank is considering increasing the money supply.

Required:

(a) Outline any three (3) functions of money. (6 marks)

(b) Explain how money solved the efficient problem of the barter system. (4 marks)

(c) Determine what happens to nominal GDP if the central bank increases money supply by 10%, while velocity remains constant. (4 marks)

(d) Explain one (1) positive and one (1) negative effects of the decision to increase money supply. (6 marks)

[Total: 20 Marks]

QUESTION FIVE

International trade necessitates the conversion of domestic currency into foreign currency and vice versa to facilitate international transactions. The foreign exchange market permits the most efficient conversion of currencies.

Suppose country X is heavily reliant on exports. It mainly exports textile and electronic products and imports essential goods such as oil, machinery, and selected food items. It has recently seen its currency depreciate against major trading partners. Exporters are celebrating the depreciation, while importers are not happy with the development. The government is exploring strategies to stabilize the exchange rate while promoting trade competitiveness.

Required:

(a) Outline any three (3) benefits of international trade. (6 marks)

(b) Explain why exporters are happy and importers are not. (2 marks)

(c) Describe the impact of currency depreciation .

- (i) The trade balance. (2 marks)
- (ii) Inflation. (2 marks)
- (iii) Domestic production. (2 marks)

(d) Outline any two (2) policies that could be implemented to stabilize the exchange rate. (6 marks)

[Total: 20 Marks]

QUESTION SIX

One of the best measures of an economy is its growth rate. Economic growth does not increase continually, but rather in spurts, by cycling through peaks and recessions. Often, peaks are associated with higher prosperity, but also with higher inflation, while recessions are associated with higher unemployment. The Zambian Government's objective is to attain and sustain an annual real economic growth rate of between 6 and 10 percent. During the period 2006 to 2010, growth rate was favourable, averaging 8.7 percent. Between 2011 and 2016, however, the economic growth rate slowed down, and averaged 4.9 percent. The growth was driven by ICT, wholesale and retail trade, as well as the construction sector. During the period 2017-2021, growth declined further with the real growth rate averaging 1.4 percent largely due to unfavourable weather conditions which impacted the agriculture and energy sectors in the earlier years of the period. Another notable development was in 2020 when economic growth contracted by 2.8 percent, registering the first recession since 1998. This was mainly due to the effect of disruptions in supply chains and containment measures associated with the COVID-19 pandemic. (**8NDP, 2022)**

Required:

(a) Define the terms, peaks, recession and economic growth. (6 marks)

(b) List any four (4) factors that affected economic growth according to the scenario. (4 marks)

(c) With the aid of graphs, demonstrate your understanding of the following:

(i) Movement along the supply curve for maize in Zambia. (5 marks)

(ii) Shift in the supply curve for maize in Zambia. (5 marks

[**Total: 20 Marks]**

END OF PAPER

CA 1.3 BUSINESS ECONOMICS

SUGGESTED SOLUTIONS

QUESTION ONE

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

QUESTION TWO

(a)(i) Derivation of Total Cost

AC = TC/Q

$TC = (6Q + 13)Q = 6Q^2 + 13Q$

(ii) At Q = 30

$TC = 6(30^2) + 13(30) = 5{,}790$

AC = 6(30) + 13 = 193

MC = 12(30) + 13 = 373

(iii) Since price (350) < MC (373), the farmer should NOT sell the extra unit.

(b)

Free entry and exit eliminate supernormal profits and losses in the long run, ensuring only normal profits.

(c)

If P < AC, firms make losses. If P > AVC, firms produce in the short run but exit in the long run.

(d)

Advantages:

- **Allocative Efficiency:** In perfect competition, firms produce where **price equals marginal cost (P = MC)**, ensuring that resources are allocated to the production of goods and services most valued by consumers.
- **Productive Efficiency:** In the long run, firms operate at the **minimum point of the average cost (AC) curve**, meaning goods are produced at the lowest possible cost, minimizing waste of resources.
- **Lower Prices for Consumers:** Intense competition and the absence of market power prevent firms from charging excessive prices, resulting in **fair and competitive prices** for consumers.

- **Normal Profits in the Long Run:** Free entry and exit ensure that firms earn **only normal profits**, preventing exploitation of consumers while maintaining sustainability for producers.
- **Consumer Sovereignty:** Consumer preferences determine what is produced, as firms must respond to market demand to survive, thereby promoting responsiveness and efficiency in production decisions.

QUESTION THREE

(a) Market structure refers to the organization of a market based on number of firms, entry barriers, and pricing power.

(b) Other market structures:

- Monopolistic competition
- Oligopoly
- Monopsony
- Duopoly

(c)

Perfect Competition:

• Homogeneous products

• Perfect information

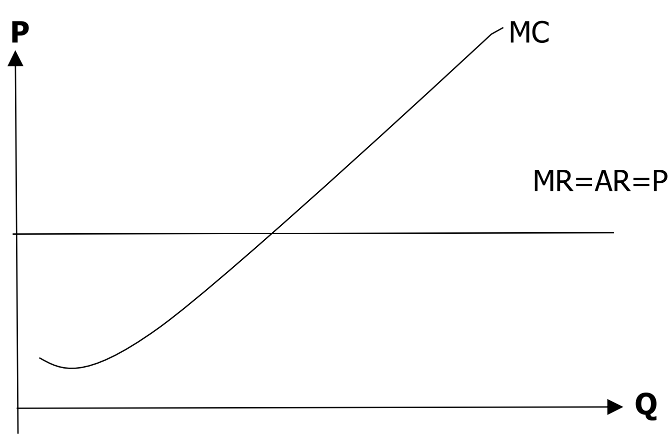
Monopoly:

• High barriers to entry

• Downward sloping demand curve

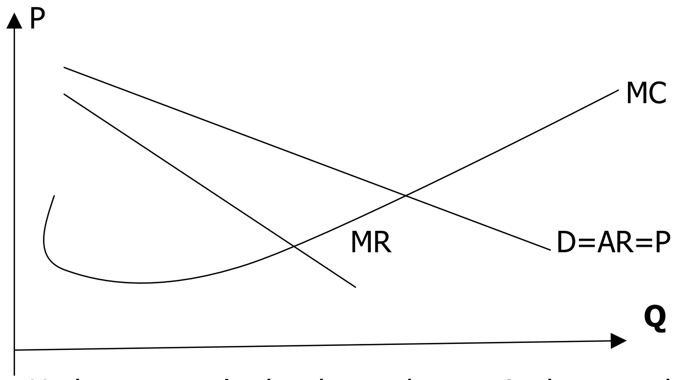
(d)

Perfect Competition:



Under perfect competition, demand is perfectly elastic because each firm has no influence over price, hence AR = MR = Price (horizontal).

Monopoly:



Under monopoly the demand curve is downward sloped to the right because to sell more, you need a monopolist must reduce the selling price. Thus, AR slopes downward; MR lies below AR.

QUESTION FOUR

(a) Functions of money:

- Medium of exchange
- Unit of account
- Store of value
- Standard of deferred payment

(b) Money eliminates double coincidence of wants and improves efficiency. It also improves:

- Divisibility (small units for small transactions)
- Common valuation (prices quoted in money terms)
- Storability (holding wealth over time, relative to many barter goods)

(c) Nominal GDP:

Use the quantity (Fisher) equation:

$$MV = PY$$

Initially:

$$500 \times 4 = 2000$$

New money supply:

$$M_1 = 500(1.10) = 550$$

Nominal GDP becomes:

$$PY_1 = M_1V = 550 \times 4 = \boxed{2200 \text{ billion}}$$

So nominal GDP increases by 10% (from 2000 to 2200).

(d)

Positive:

- Can reduce interest rates
- Can stimulate consumption investment, raising output and employment (especially if there is idle capacity).

Negative:

- Can raise inflation (too much money chasing goods),
- May weaken the currency or fuel asset-price bubbles.

QUESTION FIVE

(a) Benefits of trade:

- Gains from comparative advantage (specialization increases total output)
- Greater variety/consumer choice
- Economies of scale (larger markets lower average costs)
- Technology transfer and learning
- Increased competition and efficiency

(b) **Depreciation** makes exports **cheaper to foreigners.**

- **Therefore,** exporters sell more and earn more domestic currency per unit of foreign revenue.
- Imports become **more expensive in domestic currency**. Thus, importers pay more.

(c) (i) Trade balance : Exports become more competitive and imports more expensive; trade balance may improve if export volumes rise and import volumes fall sufficiently (often with a possible J-curve: short-run worsening, long-run improvement).

(ii). Inflation: Higher import prices cause imported inflation (fuel, machinery, food inputs), pushing up the general price level.

(iii) Domestic production: Can stimulate domestic production (import substitution + stronger demand for local goods), but if firms rely on imported inputs, production costs may rise.

(d)

- Monetary Policy Tightening**:** The central bank can raise policy interest rates to reduce inflationary pressures and attract foreign capital inflows, increasing demand for the domestic currency and supporting exchange rate stability.
- Foreign Exchange Market Intervention: The central bank may buy or sell foreign currency reserves to smooth excessive exchange rate fluctuations, particularly under a managed or crawling exchange rate regime.
- Fiscal Policy Discipline: Reducing fiscal deficits through expenditure control and improved revenue mobilization lowers inflation and borrowing needs, thereby reducing pressure on the domestic currency.
- Export Diversification and Promotion Policies: Encouraging export diversification and value addition increases foreign exchange earnings, strengthens the balance of payments, and supports long-term exchange rate stability.

QUESTION SIX

(a)

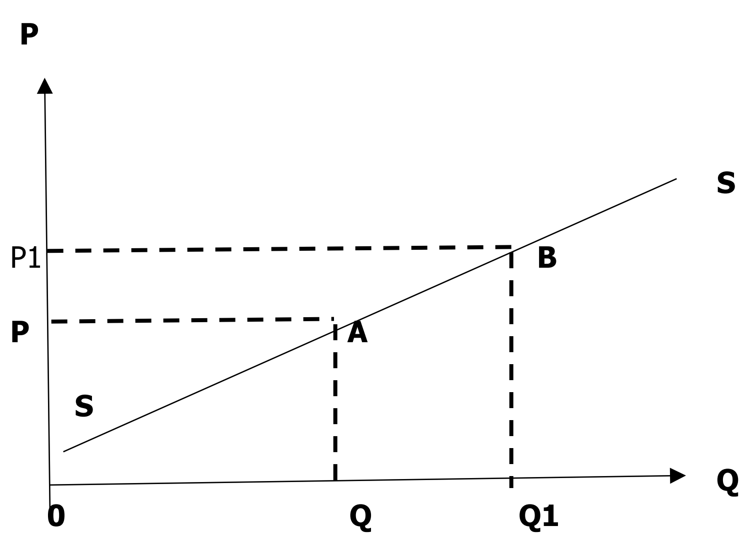
- **Peak:** the highest point of economic activity in the business cycle before a downturn begins.
- **Recession:** a significant decline in economic activity, commonly identified as **two consecutive quarters of falling real GDP**, alongside falling output/employment.
- **Economic growth:** a sustained increase in **real GDP** (or real GDP per capita) over time.

(b) From the scenario, acceptable factors include:

- Growth driven by **ICT**
- Growth driven by **wholesale and retail trade**
- Growth driven by the **construction sector**
- **Unfavourable weather conditions** affecting agriculture and energy
- **COVID-19 supply chain disruptions**
- **Containment measures** during the pandemic

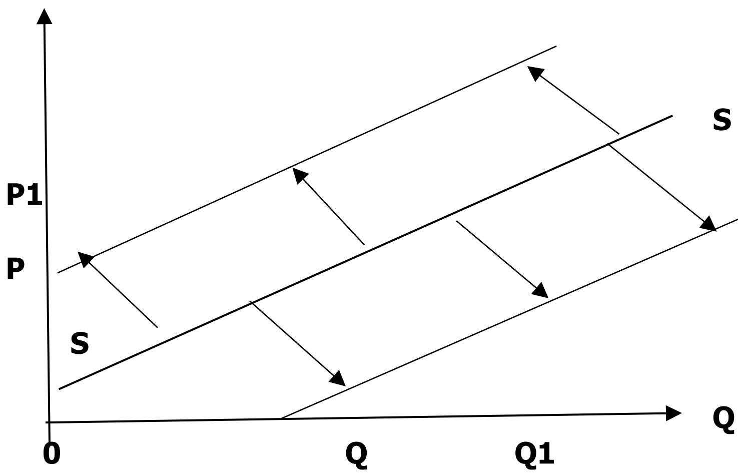
(c)

(i) Movement along the supply curve



A movement from point A to point B is demonstrates a movement along the supply curve because there is only a single supply curve. Both the quantity and price change (from P to P1, and from Q to Q1 and vice-versa)

(ii). Shift in supply:



A shift in the supply curve occurs when the quantity supplied changes at every price level due to a change in non-price determinants of supply, while the price of the good itself remains unchanged.

A rightward shift (increase in supply) happens when producers are able to supply more output at all prices. This may be caused by factors such as improvements in technology, reductions in input costs, favorable weather conditions (especially for agricultural goods), government subsidies, or an increase in the number of producers in the market.

A leftward shift (decrease in supply) occurs when producers supply less at all prices. This can result from higher input costs, unfavorable weather conditions, increased taxes, stricter regulations, or disruptions in production.

END OF SUGGESTED SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA CERTIFICATE IN ACCOUNTANCY

CA 1.4: COMMERCIAL AND CORPORATE LAW

FRIDAY 12 DECEMBER 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 Which one of the following statements concerning the principle of binding precedent is not correct?

A. Mistakes by judges are eliminated.
B. General Legal Principles are established.
C. Lower courts bind superior courts.
D. Allows for law development.

(2 marks)

1.2 Which one of the following best describes the functions of the Constitutional Court?

A. The court which hears constitutional matters of companies.
B. The court which interprets the provisions of the country's constitution.
C. The court of original jurisdiction for election petitions.
D. The court which is equal to the Supreme Court and hears criminal matters.

(2 marks)

1.3 Which of the following branch of government deals with day to day running of national affairs?

A. Parliament.
B. Executive.
C. Legislature.
D. Judiciary.

(2 marks)

1.4 Which of the following describes a counter offer?

A. A counter offer is a statement which varies the original offer.
B. It is a statement which kills the original offer.
C. It is a statement which contradicts the initial offer.
D. All of the above.

(2 marks)

1.5 Which of the following is not true about express terms in a contract?

A. An express term clearly expresses the intention of the parties.
B. These are terms clearly agreed by the parties at the beginning of the contract.
C. These are actionable terms by the offer or and offeree.
D. The Plaintiff proving beyond all reasonable doubt that their version of the facts is more believable.

(2 marks)

1.6 Which of the following transactions falls under the Sale of Goods Act 1893?

A. A Land transaction.
B. Forex trading in Zambia.
C. The transfer of property in the goods.
D. Sale of shares at the Lusaka Stock Exchange.

(2 marks)

1.7 Which of the following is the best description of agreement in the context of contract law?

A. Something of value passing from one party to another in return for a promise to do something.
B. An offer by one party and acceptance by another.
C. The parties must intend that their promises create legally enforceable obligations.
D. None of the above.

(2 marks)

1.8 In employment law, which of these best describes constructive dismissal?

A. Being dismissed from work on account of race.
B. Being not given work you have been hired for.
C. Sexual orientation.
D. Redundancy.

(2 marks)

1.9 In general, under the *Sale of Goods Act*, a purchaser becomes responsible for risk of loss or damage to goods he has purchased when:

A. The purchaser makes the contract with the vendor, even if the vendor still has something to do to put the goods into a deliverable state.
B. The purchaser notifies the vendor he is ready to receive delivery.
C. The purchaser receives delivery.
D. Passing of property has occurred.

(2 marks)

1.10 When an agency relationship is ratified, which of these is not true?

A. Acceptance by the principal may be implied by the principal's behavior.
B. Ratification must occur within a reasonable time after creation of the contract.
C. The principal may accept only part of the agreement.
D. The principal must have capacity to enter into a contract.

(2 marks)

[Total: 20 Marks]

SECTION B

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

Then attempt any THREE (3) questions out of the remaining FOUR (4).

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

(a) In relation to employment law, identify any five (5) ways by which a contract of employment may be terminated. (5 marks)

(b) In relation to the law of contract, explain the meaning of anticipatory breach and the remedies available in such a situation. (15 marks)

[Total: 20 Marks]

<u>QUESTION THREE</u>

(a) Explain three (3) circumstances under which a principal may be bound by a contract entered into by an agent on his behalf without his express authority. (6 marks)

(b) Discuss any two (2) ways of classifying the law. (4 marks)

(c) In relation to the articles of a company, discuss the rule in *Royal British Bank* v *Turquand* (1856). (10 marks)

[Total: 20 Marks]

<u>QUESTION FOUR</u>

(a) Kompieno (Pty) Ltd was a private company which carried on business in Ndola as a retailer of books. The company was the wholly-owned subsidiary of Kudu Ltd which carries on business in Lusaka. Kudu Ltd is a book publisher and the main supplier of books to Kompieno (Pty) Ltd. Kompieno (Pty) Ltd suffered a severe fall in profitability, following which Kudu Ltd had to inject substantial capital in order to ensure the continuing solvency of the company. Despite these injections of capital, Kompieno (Pty) Ltd continued to suffer financial difficulties. In consequence, the company was placed under insolvent liquidation by the High Court in Ndola. Kudu Ltd has now received demand for payment from a number of Kompieno (Pty) Ltd's creditors who argue that, as Kompieno (Pty) Ltd was the wholly-owned subsidiary of Kudu Ltd, the latter company is liable to pay the debts of its subsidiary in full.

Required:

Advise Kudu Ltd on whether or not it can be liable to pay the debts of Kompieno (Pty) Ltd. (10 marks)

(b) Luyando, who is 65 years old, has just retired from his employment with a pension and a lump sum payment of K200,000,000. He is keen to invest his money, but has absolutely no knowledge of business or investment. He does not wish any great risk to be involved in his investment and he also would like to have ready access to cash if the need arises.

Required:

Explain the meaning and suitability for Luyando, of the following:

(i) Ordinary shares;

(ii) Preference shares;

(iii) Debentures secured by a floating charge;

(iv) Debentures secured by a fixed charge. (10 marks)

[Total: 20 Marks]

<u>QUESTION FIVE</u>

(a) In company administration, there are several officers who are involved in the running of the company. In brief terms, explain the roles played by the officers listed below:

(i) The Company Auditor. (2 marks)

(ii) The Secretary of the Company. (2 marks)

(iii) The Directors of the Company. (2 marks)

(b) Distinguish between members' voluntary winding up and creditors' voluntary winding up. (4 marks)

(c) Identify any two (2) differences between a contract of sale and an ordinary contract. (5 marks)

(d) Explain privity of contract. (5 marks)

[Total: 20 Marks]

QUESTION SIX

(a) Define 'remoteness of damage' in the law of tort. (5 marks)

(b) State five (5) advantages of Sole Proprietorship. (5 marks)

(c) Explain in brief, contents of a debenture trust deed. (5 marks)

(d) Explain the significance of **Carlill v Carbolic Smoke Ball Co (1893)** in the law of contract. (5 marks)

[Total: 20 Marks]

END OF PAPER

CA1.4 COMMERCIAL AND CORPORATE LAW

SUGGESTED SOLUTIONS

SOLUTION ONE

1.1 C

1.2 B

1.3 B

1.4 D

1.5 B

1.6 C

1.7 B

1.8 B

1.9 D

1.10 C

SOLUTION TWO

(a) This question requires the candidates to explain the various ways in which a contract of employment may be terminated.

A contract of employment may be terminated by:

(1) Performance, e.g., completion of a specific project for which a person was employed;

(2) Agreement, e.g., resignation by an employee;

(3) Frustration, e.g., in the event of ill-health or military conscription;

(4) Breach, the most important of these four means of discharge.

There are two further circumstances which do not fall into any of these categories, but which are also extremely important in employment law. These are:

(1) Termination by *notice*; and

(2) Termination by *dismissal*.

Termination by breach

An employment contract is terminated by breach where there is:

(1) Summary dismissal;

(2) Constructive dismissal;

(3) Inability on the employer's behalf to continue;

(4) Repudiation of the contract by the employee.

Each of these is considered in turn below.

(b) This question requires candidates to explain one of the ways of discharging a contract, namely anticipatory breach together with the remedies available to innocent parties when they suffer as a consequence of anticipatory breach of contract.

Anticipatory breach

Breach of contract occurs when one of the parties to the contract fails to perform their part of the agreement, either fully or partially. Usually breach of contract only becomes apparent at, or after, the time set for the performance of the contract. Anticipatory breach, however, occurs before the due date of performance. It occurs where one of the parties shows a clear intention not to be bound by their agreement and indicates that they will not perform their contractual obligations on the actual due date of performance. The intention not to fulfil the contract can be either express or implied.

Express anticipatory breach occurs where one of the parties declares, before the due date of performance, that they have no intention of complying with the terms of the contractual agreement. An example of this may be seen in *Hochster* v *De La Tour (*1853). In April, De La Tour engaged Hochster to act as his courier on his European tour, starting on 1 June. On 11 May De La Tour wrote to Hochster stating that he would no longer be needing his services. The plaintiff started proceedings for damages in breach of contract on 22 May, and the defendant claimed that there could be no cause of action until 1 June. It was held, however, that the plaintiff was entitled to start his action as soon as the anticipatory breach occurred, i.e., when De La Tour stated he would not need Hochster's services.

Implied anticipatory breach does not arise from any direct indication from either of the parties that they will not perform their contractual agreement, but results from the situation where one of the parties does something which makes subsequent performance of their contractual undertaking impossible. An example of this may be seen in *Omnium D'Enterprises* v *Sutherland (*1919). In this case the defendant had agreed to let a ship to the plaintiff, but before the actual time for performance, he actually sold the ship to another party. It was held that the sale of the ship amounted to a clear repudiation of the contract and that the plaintiff could sue for breach of contract from that date, without having to wait until the actual date of performance of the contract. As has been stated, in this situation of anticipatory breach, the innocent party can sue for damages immediately they are made aware of the breach. However, they are not required to take immediate action. They can, if they so choose, wait until the actual time for performance before taking action. If they do elect to wait until the set time for performance, then they are entitled to make preparations for performance of their part of the contract; and claim the agreed contract price.

In *White & Carter (Councils)* v McGregor (1961), McGregor contracted with the plaintiffs to have advertisements placed on their litter bins which were supplied to local authorities. The defendant wrote to the plaintiffs asking them to cancel the contract. The plaintiffs refused to cancel, and produced, and displayed, the adverts as required under the contract. They then claimed payment. It was held that the plaintiffs were not obliged to accept the defendant's repudiation, but could perform the contract and claim the agreed price.

The effect of *White & Carter (Councils)* v *McGregor* apparently runs contrary to the duty to mitigate losses, as it involves the party in breach paying for more than the mere profit of the contract. There is, however, an element of danger in not accepting the repudiation of the contract when it first becomes apparent. For example, where the innocent party elects to wait for the time of performance, they take the risk of the contract being discharged for some other reason, such as frustration, and thus of losing their right to sue on the basis of the breach of contract (*Avery* v *Bowden* (1955)).

SOLUTION THREE

(a) This question requires the candidates to explain those situations where a principal may be bound by a contract entered into by an agent on his behalf without his express authority.

There are three occasions where a principal may be bound by a contract entered into by an agent on his behalf but without his express authority. These are agency of necessity, agency with implied authority and agency involving apparent (or ostensible) authority. An agency relationship between principal and agent can arise by operation of law if very strict conditions apply. This is agency by necessity. It applies where the 'principal' entrusts goods to the 'agent' for some purpose (usually carriage) and an emergency arises while the goods are in the agent's possession, in circumstances where it is impossible to contract the principal for instructions. This emergency must cause the agent to take some action to protect the principal's interest; it must not be action taken for the agent's own convenience: *Sachs* v *Miklos* (1948).

If these conditions are satisfied, then the principal is bound by the contract made by the agent (for example, for the feeding and care of livestock left in the agent's care: *Great Northern Railway* v *Swaffield* (1874)).

He is entitled only to his necessary or useful expenses provided he has not spent more than is appropriate to the occasion, nor more than the owner himself would have spent. An agent may have limited actual authority but may make contracts beyond those limits. In this case, the principal will be bound if the agent acts within the scope of his *implied* authority. It is assumed that an agent has the authority to do things incidental to his express powers. This may be inferred from his position (for example, *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.

An agent may also have apparent (or ostensible) authority. A former agent may continue to bind his principal if the third party with whom the agent deals is unaware of the agent's loss of authority. Similarly, if the agent purports to act on the principal's behalf and the principal, aware of this, does nothing to deny this, the principal cannot refuse to be bound by the contract: *In Pickering v Busk (1812***).** A broker was employed by a merchant to buy hemp. After he had completed the purchase the broker retained the hemp at his wharf, at the request of the merchant. He then sold the goods. The purchaser was held to have obtained a good title to the goods because the broker was apparently an agent to sell, and the merchant was estopped by his conduct from denying the agency.

A contract made by the agent without the principal's authority may be adopted as the principal's contract by ratification. The principal must exist when the contract is made (*Kelner* v *Baxter* (1866)), and must be identified as a party to the contract by the agent (*Keighley Maxstead & Co* v *Durrant* (1900)). The contract is not binding until ratified. Ratification is of retrospective effect, but must be done before the contract is to come into effect. The principal must be aware of all the facts relevant to the contract for effective ratification.

(b) This question requires the candidates to discuss the various ways of classifying law.

(1) Common Law and Legislation

Common Law

This is the law that is laid down in the cases (case law).

Legislation

This is the law that is in the Acts of Parliament. Important examples are the Constitution, the Companies Act 1996.

(2) Public Law and Private Law

Public Law

This is the law involving the State. A very good example is criminal law. The State lays down the law prohibiting certain omissions and actions. In case of a breach, the State prosecutes the accused. Thus a crime is a wrong against the entire community. Accordingly, the State takes the responsibility of enforcing the law and punishing offenders. Most commercial laws are also part of public law (e.g., company law and banking law). Other examples of public law include licensing law, constitutional law and administrative law.

Private Law

Private law is concerned with matters arising between individuals within the community. A good example is family law: Matters of marriage, divorce, and adoption are private law matters. Another good example is the law of delict. A delict is a wrong committed by one individual against another mainly violating the rights of that other person. The injured individual brings an action (as plaintiff) against the person who has committed the wrongful act (the defendant).

(3) Criminal Law and Civil Law

Criminal Law

Criminal law is a very common branch of the law. It is concerned with the definition and prosecution of crimes. Crimes are defined mainly in the Acts of Parliament such as the Penal Code. When a crime is committed, the State brings the prosecution against the offender. The police assist in the maintenance of law and order and in prosecuting offenders. The courts get involved in determining whether the crime was actually committed and in imposing a sentence.

Civil Law

It is concerned with actions by an individual (the plaintiff) against another person (the defendant) to obtain compensation for loss suffered (e.g. in the case of breach of contract) or to establish legal rights. A good example is the law of contract which deals with the enforcement of legally binding obligations. Another good example is the law of delict. Other examples include property law, commercial law and employment law.

(4) Substantive Law and Procedural Law

Substantive Law

This determines the law which governs a particular dispute.

Procedural Law

This states the procedure to be followed by litigants to have the dispute resolved in court. It will, for example, state which court has jurisdiction and it will further indicate which documents, if any, have to be filed. Criminal Procedure, Civil Procedure and Evidence are part of the procedural law.

(5) Common Law and Equity

Common law was gradually established by the judges of the King's Courts in England. These judges would go around the country on circuit interpreting the customs of the people. Their judgments became the common law of England. However, common law was too slow and the remedies were inadequate. The litigants complained to the King who appointed his Chancellor to sit as a court to resolve the disputes. The Chancellor established faster procedure and better remedies (such as specific performance and injunction). The law established by the Chancellor ensured justice and fairness and this new body of law became known as equity. The principles of equity were eventually fused into the common law.

(6) Municipal Law and International Law

Municipal Law

Municipal law is the internal law of a country. It is the substantive and procedural law that governs matters within a State. These matters usually involve individuals.

International Law

This is the law that governs relations between nations. It comprises treaties, customary international law principles and conventions.

(c) This question requires the candidates to discuss the rule in *Turquand's* case.

The rule in *Turquand's* case states that a person dealing with a company is entitled to assume, in the absence of facts putting him in inquiry, that there has been due compliance with all matters of internal management and procedure required by the articles: *Royal British Bank* v *Turquand* (1856). The main reason for the rule is business efficacy. It would be expecting too much of the third party to have to go through all of the company's internal detail. Business would slow down. The rule therefore mitigates the harsh effects of the doctrine of constructive notice (*Ernest* v *Nicholls* (1857)).

Exceptions to the rule

(1) The rule does not apply where the third party has notice of the irregularity or has been put on inquiry: *Liggett (B) (Liverpool) Ltd* v *Barclays Bank Ltd* (1928).

(2) The rule does not apply where the defect would be apparent from an inspection of the company's registered documents: *Irvine v Union Bank of Australia* (1877).

(3) The rule cannot be relied on by 'insiders'. There are persons who by virtue of their position in the company are in a position to know whether or not the internal regulations have been observed. Directors are a very good example of insiders.

SOLUTION FOUR

(a) This question tests the candidates' understanding of the concept of corporate personality and the rules that govern the lifting of the corporate veil.

The veil of incorporation refers to the fact that, upon registration of a company has its own legal personality, completely separate from its members. A veil is said to be drawn between the company and its members, but that veil may, under appropriate circumstances, be drawn aside to reveal those members. The doctrine of separate or corporate personality is an old one, but the case cited in relation to separate personality is: *Salomon* v Salomon *& Co Ltd* (1897). Salomon had been in the boot and leather business for some time. Together with other members of his family he formed a limited company and sold his previous business to it. Payment was in the form of cash, shares and debentures. When the company was eventually wound up it was argued that Salomon and the company were the same, and, as he could not be his own creditor, his debentures should have no effect. Although early courts had decided against Salomon, the House of Lords held that under the circumstances, in the absence of fraud, his debentures were valid. The company had been properly constituted and consequently it was, in law, a distinct legal person, completely separate from Salomon.

In the present instance it is clear that Kompieno (Pty) Ltd is in law a separate persona distinct from its shareholders and those who control the management of the company. This principle ensures that Kompieno (Pty) Ltd and Kudu Ltd are to be regarded as separate legal persons, each responsible for their own but not each other's debts.

In some cases, however, the courts have been prepared to disregard the corporate veil and pay regard instead to the realities of the situation. This is known as judicial lifting of the veil. As in most areas of law that are based on the application of policy decisions it is difficult to predict when the courts will ignore separate personality. What is certain is that the courts will not permit the corporate form to be used for a clearly fraudulent purpose or to evade a legal duty. The need to preserve the separate corporate identity would in such circumstances have to be balanced against policy considerations that arise in favour of piercing the corporate veil.

In *DHN Food Distributors Ltd* v *Borough of Tower Hamlets* (1976), the defendant Council issued a compulsory purchase order in respect of land occupied by a subsidiary of the plaintiff company. By an Act of Parliament, where a local authority acquires land compulsorily, compensation must be paid in respect of the land and in respect of any disruption of business. The Council argued that the owner of the land (the subsidiary) did not carry on any business as that was owned by the plaintiff company, a separate legal person at law. The Court of Appeal noted that holding and subsidiary companies are treated as one for accounts purposes and held that the plaintiff holding company and its two subsidiaries together comprised a 'single economic unit'. In this case, only one business was being carried on. It was merely the administration of the business that was separated between two legal entities. The Council was therefore obliged to compensate the plaintiff for the land and the distribution to business.

The plaintiff sought to rely on the *DHN case* in arguing that the defendant through its subsidiary had a 'presence' in the USA. The subsidiary was a genuine trading company distinct from its parent, was not a 'mere façade', and must therefore be regarded as a separate legal person. When the above cases are applied to Kompieno (Pty) Ltd and Kudu Ltd, it can be concluded that Kudu Ltd will not be called upon to settle the debts of Kompieno (Pty) Ltd. The latter is a separate and distinct trading entity, is not a 'mere façade', and is therefore solely responsible for its own debts.

(b) Companies usually acquire their working capital through the issues of shares. It is, however, also common for companies to borrow additional money to finance their operation. This question requires candidates to consider the difference between various types of shares and between share capital and loan capital in the form of debentures. In relation to the latter, it also requires some description of the difference between fixed and floating charges. In addition, however, candidates must assess the suitability of each category for Luyando.

(i) As defined in *Borland's Trustees* v *Steel* (1901):

'A share is the interest of a shareholder in the company measured by a sum of money, for the purpose of liability in the first place and on the interest in the second …'

The value of the shares held represents the maximum liability of a shareholder in a limited liability company. However, the actual liability of a shareholder is the amount remaining unpaid on any shares held. This difference arises in the following circumstances. When companies issue shares they may not require the full value of the shares to be paid at once. This allows the company the possibility of raising further capital from its members as it becomes necessary in the future. The amount already paid to the company is referred to as called-up capital. Any uncalled capital represents the amount of potential liability. If the shares are fully paid up then the shareholder has no further liability towards meeting the company's debts. In regard to return, shares enjoy an advantage of other securities. If the company is profitable, not only will they enjoy dividend payments but the market value of their shares will go up. On the other hand if the company does not do well, they may well not receive any payment and the value of their shares will diminish. Given his circumstances, Luyando might be best advised not to invest in shares, and certainly not in partly paid shares.

(ii) Preference shares represent a more secure form of investment than the ordinary share. The reason for this is that debentures receive a fixed rate of dividend before any payment is made to the ordinary shareholders and usually they enjoy priority over ordinary shares with regard to repayment of capital. The actual rights enjoyed by the preference shares will be stated in the company's articles of association. Dividend rights in relation to preference shares are usually cumulative, which means that a failure to pay the dividend in one year has to be made good in subsequent years. Although, as with ordinary shares, the holders of preference shares are members of the company, their voting rights are restricted to any period when their dividends are in arrears.

From Luyando's point of view, holding preference shares would reduce his openness to risk, even if not completely removing it.

(iii) Debentures are documents that acknowledge a company's borrowing, although the term has been extended to cover the loan itself. As debenture holders lend money to the company they are its creditors, they are not members. As creditors they are entitled to receive interest, whether the company is profitable or not. It may even be necessary to use the company's capital to pay the debentures interest. Share dividends on the other hand must never be paid from capital. It is usual for the company to provide security for the amount it has borrowed by issuing debentures. There are two methods of securing debentures: by means of a floating charge, or by means of a fixed charge, both of which have to be properly registered. In the case of a floating charge the security is provided by all of the company's property, some of which may be continuously changing, such as stock-in-trade. The charge only crystallises, i.e., fixes on the specific property, when the company commits some act of default, and until then it is free to deal with the property in its ordinary course of business. The disadvantage of floating charges is that they come after fixed charges when it comes to paying a company's debts, so if all the assets are used to pay off those prior debts, there may well be nothing left to pay the holders of the floating charges. Once again Luyando's preference for avoiding risk would be improved by holding debentures.

(iv) Where debentures are secured by means of a fixed charge, specific assets of the company are made subject to a legal charge to secure the debt. When assets are subject to a fixed charge, the company is not free to dispose of them without the specific approval of the charge-holder and if the company fails to pay either the interest or the capital when due, the assets can be sold to recover the value of the debt owed. As a legal charge, the fixed charge takes priority over other charges and debts. Such an investment, if he could get it, would provide Luyando with maximum security. It would, however, provide him with the lowest return.

SOLUTION FIVE

(a) **(i) Auditor**-is a person who counter checks the accuracy of the company's financial records. An auditor can either be internal or external.

(ii) Secretary-is the administrative head of a company who ensures that all the records are in order, the company complies with all company regulations and may also represent the company in case of any legal suits.

(iii) Director-is a person who takes care of the day to day running of the company.

(b) To wind up the company and appoint a liquidator. In order for it to be a members' voluntary winding up, the directors have to make the declaration of solvency confirming that the company will be able to pay all its debts.

A creditor's voluntary winding up occurs where the shareholders resolve to put the company into liquidation, but cannot make a declaration of solvency. Within 24 hours of the passing of the resolution to wind up the company, the shareholders must convene a meeting with the creditors. At this meeting, either the shareholders of the creditors can appoint the liquidator. While a members voluntary winding up occurs where the shareholders of the company pass a resolution.

(c)

- A contract of sale is regulated by the Sale of Goods Act of 1893, while an ordinary contract is not regulated by the Sale of Goods Act of 1893.
- A sale of goods contract specifically deals with selling and buying of goods, while an ordinary contract includes a number of transactions including services not covered by a contract of sale.
- By definition, a contract of sale is a contract whereby the seller agrees to transfer property in the goods to the buyer for money consideration known as the price, while a contract is defined as a legally binding agreement where one makes an offer and the accepts unconditionally.

(d) The doctrine of privity is a concept that it is only those who are party to a contract (are 'privy' to the contract) have rights and liabilities under the contract, and so have the right to enforce the contract. Contracts, therefore, do not give rights or obligations to others, known as 'third parties' who are not party to the contract.

SOLUTION SIX

(a) This question requires the candidates to explain the concept of remoteness of damage in the law of tort. Even where someone has been held to owe a duty of care to another person and to have breached that duty in such a way as to cause them to sustain loss or injury it does not follow as a matter of course that the person so responsible will be liable to provide recompense for all the loss sustained. Just as in contract law, the position in negligence is that the person ultimately liable in damages is only responsible to the extent that the loss sustained was considered not to be too remote.

The current test was established in The Wagon Mound (No 1) (1961). As the facts will demonstrate, the way in which the current doctrine operates will be set out in more detail than is usual. The defendants negligently allowed furnace oil to spill from a ship into Sydney harbour. The oil spread and came to lie beneath a wharf, which was owned by the plaintiffs. The plaintiffs had been carrying out welding operations and, on seeing the oil, they stopped welding in order to ascertain whether it was safe. They were assured that the oil would not catch fire, and so resumed welding. Cotton waste, which had fallen into the oil, caught fire. This in turn ignited the oil and a fire spread to the plaintiff's wharf. It was held that the defendants were in breach of duty. However, they were only liable for the damage caused to the wharf and slipway through the fouling of the oil. They were not liable for the damage caused by fire because damage by fire was at that time unforeseeable. The question to be asked in determining the extent of liability is, 'is the damage of such a kind as the reasonable man should have foreseen?'

(b) The main advantages of a sole proprietorship include: ease of setup, full control over the business, simplified tax filing, low startup costs, flexibility in decision-making, and the ability to keep all profits without sharing with partners; however, the significant drawback is unlimited personal liability for the owner.

Key benefits of a sole proprietorship:

(1) **Simple to start:**

Requires minimal legal formalities and paperwork to establish a business compared to other structures.

(2) **Complete control:**

The owner has full decision-making power and management responsibility over all aspects of the business.

(3) **Tax advantages:**

Business income is reported on the owner's personal tax return, avoiding double taxation.

(4) **Low startup costs:**

Minimal expenses to begin operations, making it a good choice for small businesses with limited capital.

(5) **Flexibility:**

Ability to quickly adapt to market changes and make decisions without needing approval from others.

(6) **Privacy:**

No need to disclose financial information to partners or shareholders.

(c) The following are the contents of a debenture trust deed:

(i) The appointment of a trustee for prospective debenture stockholders.

(ii) The nominal amount of the debenture stock.

(iii) If the denture stock is secured, the deed creates a charge or charges over the assets of the company.

(iv) The trustee is empowered to enforce the security in cases of default.

(v) Elaborate provisions for transfer of stock and meetings of debenture stockholders.

(d) **Carlill v Carbolic Smoke Ball Co (1893)** established the rule of an offer being made to the whole. This is a unilateral offer. If an offer is made to the whole world, it can be accepted by any person. The person accepting a unilateral offer does not have to communicate their acceptance to the offeror. They should just do what has been requested. In this case, the company advertised that it would pay £100 to anyone who caught influenza after using their smoke ball as directed. Carlill used the smoke but still caught influenza and sued the company for the promised £100. It was held that the advert was an offer to the whole world which Carlill accepted by her conduct. Therefore, she had a valid contract with the company.

CA ZAMBIA PROGRAMME EXAMINATIONS

CA CERTIFICATE IN ACCOUNTANCY

CA 1.5: MANAGEMENT THEORY AND PRACTICE

MONDAY 8 DECEMBER 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 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 Which of the following best describes Centralisation?

A. Offers greater control and coordination of the strategies and activities of the organization.
B. Offers greater flexibility in decision-making and making decisions may be based on better understanding of operating conditions.
C. Offers one place for central posting.
D. It is activities at head office.

(2 marks)

1.2 The Government recently introduced new bank notes. This is an example of what factor in the Macro-environment?

A. Political factors.
B. Economic factors.
C. Social-cultural factors.
D. Technological factors.

(2 marks)

1.3 Harrison classified four (4) types of organisational cultures. Handy gave them names of Greek Gods to them. Which one of the following is not correct among them?

A. Power culture- Zeus.
B. Role culture- Apollo.
C. War culture- Achilles.
D. Task Culture-Athena.

(2 marks)

1.4 Put the following in the correct order according to Tuchman's stages of group development;

A. Forming, storming, norming, performing.
B. Norming, storming performing, forming.
C. Forming, Norming, storming, performance.
D. Performing, storming, norming, forming.

(2 marks)

1.5 The following are what the Nominations Committee are supposed to consider, except for:

A. The balance between the executives and the independent non-executives.
B. The skills, knowledge and the experience by the current Board.
C. The need for continuity of the successive plan.
D. The future financial outlook of the organization.

(2 marks)

1.6 The route to follow in the resolution of ethical conflicts includes:

A. Gathering all the relevant information.
B. Victimizing the perpetrator.
C. Not reporting to managers or external bodies.
D. Investigating the case, yourself even if involved.

(2 marks)

1.7 Which of the following is not a category of threat identified in IFAC guidance?

A. Advocacy.
B. Confidentiality.
C. Familiarity.
D. Self-review.

(2 marks)

1.8 Who suggested that a primary managerial role is "developing people"?

A. Drucker.

B. Handy.

C. Taylor.

D. Herzberg.

(2 marks)

1.9 According to Fiedler, psychologically distant Managers.

A. Tend to be verbally abusive to their subordinates.

B. Are weird.

C. Tend to be authoritarian.

D. Are effective when the situation is neither more favourable nor very adverse.

(2 marks)

1.10 According to Lewins theory of Force-field Analysis and organizational change, which one of the following statements is correct?

A. Anxiety about job security is a force for change.

B. To make change more successfully, it is more effective to try reducing the restraining forces than to try making stronger the drivers of change.

C. If the forces resisting change are exactly equal in strength to the drivers of change, then change will occur.

D. A driving force for change is work pressure, and having to meet deadlines, leaving little free time for people affected by the change.

(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)

The upbringing and socialisation of individuals in African society have always emphasised interpersonal, informational, and decisional roles. A leader either in a social group or in the work environment is guided by the Ubuntu philosophy which expects a person to inform and communicate with the followers or subordinates in the roles above. It is very important for a leader or manager to communicate effectively internally and externally to all concerned.

Required:

(a) Explain briefly, the four (4) decision roles that a leader and manager is expected to discharge in the exercise of his work with his work group. (8 marks)

(b) Explain the four (4) managerial skills important to a good leader. (12 marks)

[Total:20 Marks]

QUESTION THREE

Company's relations and interactions with different groups within and outside organisation are that of give and take and dependence on each other. Some of such stakeholders may be interested in the people within the organisation and their activities while others are concerned because they are affected by its operations.

Required:

(a) Define the three (3) broad types of such stakeholders. (6 marks)

(b) State the main interests for the groups that are within the organisation. (6 marks)

(c) Explain the "give and take" relationship that the organisation has with each of the following:

(i) Customers. (2 marks)

(ii) Suppliers. (2 marks)

(iii) Bankers. (2 marks)

(iv) Shareholders. (2 marks)

[Total: 20 Marks]

QUESTION FOUR

In recent years there has been a lot of complaints from customers about service providers. The complaints are across the organisations e.g. health care, telecommunication, education restaurants and many more. Some complaints are about poor or compromised services which don't give customer satisfaction nor reflect value for money as expected by customers. A lot of customers have also complained about the poor attitude by these service providers.

Required:

(a) Service provision has certain characteristics which distinguish them from production. Explain the four (4) characteristics that may enhance customer satisfaction in the service industry. (8 marks)

(b) One of the reasons for poor service provision may be caused by individual's need for self-esteem and recognition in employees and managers who may feel ignored at times by their superiors. Explain the three (3) kinds of systems that an organisation should put in place in order to continue motivating the managers. (6 marks)

(c) Most of the service providers seem to be workers with no morale or enthusiasm as they perform their duties. Provide any three (3) signs of low morale or dissatisfaction in employees at work. (6 marks)

[Total: 20 Marks]

QUESTION FIVE

Three (3) years ago, you had discussed with your grade 12 colleague of a possibility of you starting a business together. Each one of you had been struggling with an effort of small business ventures. Now you and your friend have both realized that two-is-better-than-one and hence you have agreed to work together after getting professional advice.

Required:

(a) State five (5) reasons, why each of you failed to perform well as sole traders.

(5 marks)

(b) In your decision to work together with your colleague, you have opted for a partnership form of business ownership. Discuss any five (5) features of a partnership. (15 marks)

[Total: 20 Marks]

QUESTION SIX

The world at large is faced with a lot of changes brought about by ecological changes, issues of globalisation, and other macro environment factors. Such changes affect the operations of the business organisations and their performance in different ways.

Required:

(a) Since changes of the above nature are inevitable, explain the four (4) issues pertaining to Change Management that are important to consider in strategic planning? (8 marks)

(b) Give any three (3) examples of strategic changes that may be there in the business environment. (6 marks)

(c) List six (6) external triggers for change. (6 marks)

[Total: 20 Marks]

END OF PAPER

CA1.5 MANAGEMENT THEORY AND PRACTICE

SUGGESTED SOLUTIONS

SOLUTION ONE

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

SOLUTION TWO

(a) **Decision roles**

(1) Entrepreneur – Initiate any change or progress in the organisation and this involves with taking.

(2) Disturbance handler – Solving problems, disciplinary controls, in fighting and cohesive behaviour checks. Stabiliser in the organisation.

(3) Resource allocator - Budgeting, appropriation of financial resources, financial control/approval, resource diversion

(4) Negotiator: Negotiating with Outside Stakeholders: an issues pertaining to the organisation.

(b) Business and managerial skills important to a good leader, Discuss any four (4) of such skills.

(1) Entrepreneurship – the ability to spot business opportunities and mobilise resources to capitalize on them.

(2) Interpersonal skills – such as networking, rapport-building, influencing, negotiating, conflict resolution, listening, coaching, and communicating assertively

(3) Decision-making and problem-solving skills, including 'seeing the big picture.'

(4) Time-management and personal organisation.

(5) Self-development skills: the ability to learn continuously from experience, to grow in self-awareness and to exploit learning opportunity

SOLUTION THREE

(a) The following are the three (3) broad types of such groups:

- (i) Internal stakeholders - employees and management
- (ii) Connected stakeholders – owners, customers, suppliers, financiers
- (iii) External stakeholders – community, government, pressure groups

(b) The following are the interests of the groups within the organisation:

- (i) Organisations continuation and growth
- (ii) Managers and employees have personal interests and goals which can be satisfied by organisations such as status and job satisfaction.

(c) Explain the "give and take" relationship that the organisation has with

- (i) Customers: Organisation provide goods and services which are bought by the customers at a fee.
- (ii) Suppliers: These give supplies to the organisation and which they use to make goods that are offered back to the community.
- (iii) Bankers lend money and customers give the business through banking.
- (iv) Shareholders: These own the company and the provide jobs while employees offer their skills.

SOLUTION FOUR

(a) The following are the characteristics of service provision organisations which make them different from production:

(i) Customer involvement- means that the surroundings in which the service is provided and characteristics of the service are vital to enhance the experience of the customer.

(ii) Time perishable- service cannot be stored and are wasted if they are not used. For example, if an empty seat is not used on a trip it is loss of income.

(iii) Intangibility- the benefits or services are more likely related to emotions feelings and the experience gained. Production organisation offer tangible products.

(iv) People oriented- it is therefore important for service providers to consider the type of individuals or workforce who will influence the customer's perceptions of the service provided.

(v) Performance measurement- it is hard to measure performance for a service organisation but it can only be determined in part by the perception of the customer.

(b) The following are systems an organisation should put in place to continue motivating its managers:

(i) Recognise personal achievement of an individual

(ii) Rewarding successful achievements

(iii) Providing opportunities for further personal achievements through personal development and career progression

(c) The following are some of the signs of lack of morale:

(i) Low productivity

(ii) High labour turns over

(iii) Poor attitude towards customers

(iv) Poor service provision

SOLUTION FIVE

(a) Disadvantages of sole trader include:

(i) The business does not have limited liability. The owner is personally liable for all the unpaid debts of the business.

(ii) The business cannot survive without the owner. For example, the business would suffer if the owner became very sick or died.

(iii) It is difficult for a sole trader to borrow money. This makes it difficult to expand the business, or modernize the business by purchasing new equipment. A sole trader may be unwilling to provide a bank with a personal guarantee or any form of security.

(iv) The sole proprietor may be inefficient when the business becomes too big for just one person to operate or manage it.

(v) The sole proprietor is self-employed. This means they do not have such benefits a state social security or retirement benefits as those who are employed by a company

(vi) A sole trader work all the time and usually will not go on leave or holiday without closing the business.

(b) Discuss any five (5) features of a partnership.

(i) They can be formed by up to 20 partners, except that professional partnerships such as firms of accountants, lawyers, doctors and engineers may have more than 20 partners.

(ii) Partnerships are common among the professions

(iii) The initial capital of the partnerships is provided by a contribution from each partner. The partners are all part-owners of the business, but the capital contributed by each partner does not have to be the same amount. Some partners may provide more capital than others.

(iv) In a business partnership the partners also manage and control the business. They may employ other individuals.

(v) Every partner is entitled to be involved in the running of the business. A decision made by any one partner is binding to the partnership. For example, if one partner orders goods from a supplier, the business is liable and the other partners cannot refuse to accept the goods or pay for them.

(vii) By law, a partnership does not have a legal existence as a separate entity. This is different from companies. Every partner is personally liable for the debts and the other liabilities of the business. If the business cannot pay its debts, the partners are liable to the debts from their personal assets, in this respect, partnerships are the same as sole traders.

SOLUTION SIX

(a) The following are the importance of considering change in strategic planning:

(i) It is important because change is initiated by strategy planning.

(ii) A position audit may reveal serious weaknesses that need to be dealt with the organisation may identify strengths that it plans to exploit more fully and its plans to do so may involve big changes.

(iii) Change is usually a response to developments in the business environment.

(iv) Because business organisations must adapt and change in order to survive

(b) The following are the three (3) examples of strategic changes:

(i) In response to globalisation a business will change their organisation to meet the competitive threats from multinational companies that are seeking to invest in the country.

(ii) Serious fall in demand for the organisation products because they are reaching the end of their life cycle prompting the need for strategic or survival through change

(iii) May be prompted by the desire to respond to the competitive threat when market is dynamic and continually changing, organisations need to adjust their competitive strategy continuously and there may be a continual process of change.

(c) The following are the external triggers for change;

(i) Political

(ii) Economic

(iii) Social and cultural

(iv) Technological

(v) Ecological

(vi) Legal

CA ZAMBIA PROGRAMME EXAMINATIONS

CA CERTIFICATE IN ACCOUNTANCY

CA 1.6: BUSINESS COMMUNICATION

WEDNESDAY 10 DECEMBER 2025

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

INSTRUCTIONS TO CANDIDATES

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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 If a spreadsheet column is not wide enough to display it's contents, which of the following would appear?

A. # REF!

B. # NUM!

C. ####

D. #DIV/O!

(2 marks)

1.2 Which of the following is a common method to protect sensitive information from unauthorized access?

A. Using simple passwords like "123456".

B. Sharing login credentials with colleagues.

C. Implementing encryption techniques.

D. Disabling antivirus software.

(2 marks)

1.3 What software controls access to a Database?

A. An operating system.

B. An enterprise resource planning system.

C. A database management system.

D. A data warehouse.

(2 marks)

1.4 Which of the following best describes a Decision Support System (DSS)?

A. A system that handles business transactions like payroll processing.

B. A system that supports management decision-making through data analysis.

C. A system used for designing company logos.

D. A system used to manage office emails. (2 marks)

1.5 Which principle of data quality relates to whether the data can be used in conjunction with other data or if it can be used over periods of time?

A. Relevance.

B. Coherence.

C. Accuracy.

D. Interpretability.

(2 marks)

1.6 Identify an advantage of oral communication from each of the following:

A. There is a record for future reference

B. Messages can easily be confirmed

C. Messages are easily distorted

D. There is no record for future reference

(2 marks)

1.7 A bar chart is useful for ________________________________

A. Displaying numerical data trends

B. Writing long-form reports

C. Sending internal emails

D. Formatting text

(2 marks)

1.8 Identify a communication channel that is most suitable for delivering sensitive or complex messages from the following:

A. Company blog.
B. Text messages.
C. Phone calls.
D. Face-to-face.

(2 marks)

1.9 Which of the following is an example of a communication barrier?

A. Using simple language.
B. Effective body language.
C. Technical jargon.
D. Clarity in speech.

(2 marks)

1.10 In a business letter, where should the sender's address be placed?

A. At the top right corner.
B. At the bottom of the letter.
C. In the middle of the letter.
D. It does not matter where it is placed.

(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)

<u>QUESTION TWO – (COMPULSORY)</u>

A company tracks expenses in different departments over a year. The data is shown below.

Department	**Expenses (in ZMK000s)**
Marketing	50
Production	120
HR	40
IT	70
Finance	90

Required:

(a) Draw a bar chart representing the expenses per department. (6 marks)

(b) Identify any two (2) key conclusions that can be drawn from on the bar chart that you have drawn. (4 marks)

(c) Explain any three (3) benefits of using a bar chart instead of a table for financial analysis? (6 marks)

(d) Explain any two (2) disadvantages of using a bar chart for financial analysis. (4 marks)

[Total: 20 Marks]

QUESTION THREE

(a) Business networks are complex, and many issues can disrupt network performance. End users often complain about what appears to be poor application performance, but a few reasons could create problems. It's important for network administrators to understand the most common network issues and how to troubleshoot them.

Required:

Outline five (5) common issues that can disrupt the performance of a network.

(10 marks)

(b) You are making improvements to your company profile as an editor. The document will be taken for printing as soon as you finish editing it.

Required:

Describe how you would use the spelling tool in Microsoft Word to correct any spellings and grammar in the document. (6 marks)

(c) Explain the concept of data encryption and how it is applied in safeguarding financial data.

(4 marks)

[Total: 20 Marks]

QUESTION FOUR

(a) An intranet is a private network contained within an enterprise that is used to securely share resources among employees. With access to the intranet and the knowledge to use it, people can work towards higher-paying jobs, develop new skills and better participate in a digital workforce.

Required:

Outline five (5) uses of the intranet within an organisation. (10 marks)

(b) All organizations need to share information and data amongst people. Instead of emailing or using Universal Serial Bus drives to move data, this can facilitate collaboration between people in different locations and can be used to transfer large files that may be otherwise difficult to move.

Required:

State one (1) major difference between a file server and a database server, giving one (1) use case for each in business operations. (4 marks)

(c) Describe two (2) types of Information Systems that are commonly used in Accounting Firms other than Management Information System (MIS). (4 marks)

(d) A computer-based Information system is an information system that uses computer technology to perform at least some of its tasks. Almost all information systems used by organizations are computerized.

Required:

List two (2) benefits of computerised Accounting Information System. (2 marks)

[Total: 20 Marks]

QUESTION FIVE

You have been assigned the responsibility of organising a meeting for your organisation. After notifying members about the meeting via WhatsApp, only a few attended. The majority of those who were absent did not send any apologies. As a result, the meeting could not proceed due to lack of a quorum.

Required:

(a) Define the term quorum. (2 marks)

(b) Outline any three (3) reasons why it is important to send apologies when one is not able to attend a meeting. (6 marks)

(c) Write a notice, rescheduling the meeting following the failure of the initial one. The main items for discussion should be included in the notice. (12 marks)

[Total: 20 Marks]

QUESTION SIX

Management in most organisations encourage staff to communicate effectively for smooth operation. However, there are situations when ineffective communication occurs due to certain barriers to communication. It is for this reason that you were tasked with training new employees on effective communication. During the session, a participant asked about the importance of feedback in the communication process and you responded on the same.

Required:

(a) Explain to the new employees what effective communication is. (2 marks)

(b) Outline any four (4) reasons that make feedback important in communication. (8 marks)

(c) Explain any five (5) barriers to effective communication that new employees may encounter. (10 marks)

[Total: 20 Marks]

END OF PAPER

CA 1.6 BUSINESS COMMUNICATION

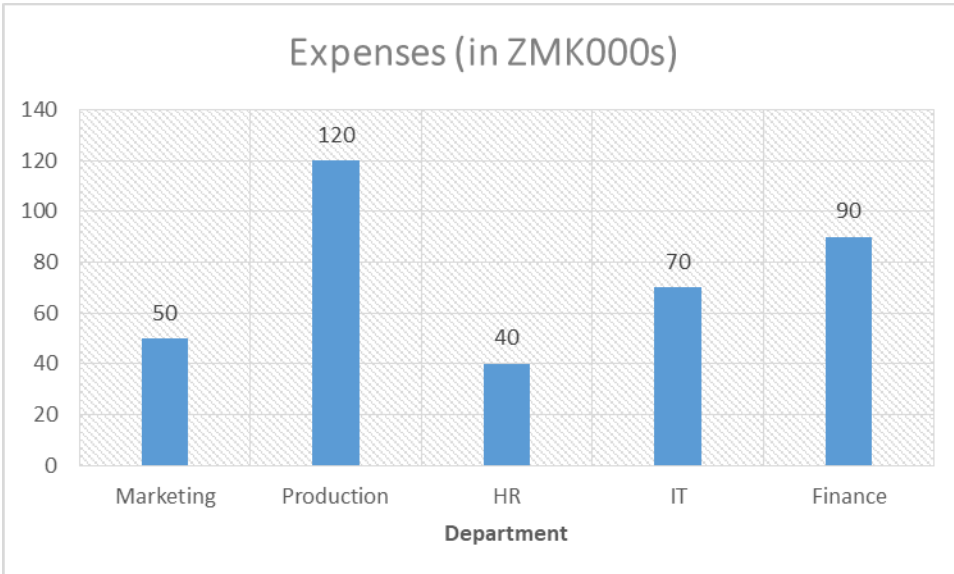
SUGGESTED SOLUTIONS

SOLUTION ONE

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

SOLUTION TWO

(a) Bar Chart: The Expenses per Department



(b) Key Insights from the Chart:
  (1) Production Department has the highest expenses (ZMK120,000), indicating it is the most resource-intensive area.
  (2) HR Department has the lowest expenses (ZMK40,000), suggesting lower operational costs in personnel management.

(c) Benefits of Using a Bar Chart Instead of a Table for Financial Analysis:
  (1) Easier to Compare Data – Visual representation makes it quicker to identify trends.
  (2) More Engaging – Graphical presentation is easier to interpret than numerical tables.
  (3) Summarise a large set of data in visual form
  (4) Estimate key values at a large glance

(d) Disadvantages of Using a Bar Chart for Financial Analysis:
  (1) Can Oversimplify Data – Detailed information may be lost compared to tables.
  (2) Limited Data Representation – Cannot effectively show complex relationships like percentages.

SOLUTION THREE

(a) Outline five (5) common issues that can disrupt the performance of a network.

Five Common network issues:

(1) Slow network

Users sometimes complain the network is too slow. Several factors can slow down a network that provided adequate performance in the past. For example, if administrators add a new application such as video conferencing or online training videos -- to the network, it could increase bandwidth consumption and cause congestion. Another cause of congestion could occur when a failing switch port or link causes traffic to route around the failure and overload another link.

(2) Physical connectivity issues

Physical connectivity issues can also cause disruptions in network connectivity. A common problem is when a network cable becomes damaged or knocked loose. This can happen if network administrators add or remove cables from a switch or if one of the other cables accidentally disconnects.

Cables can also become damaged if someone pulls them around a sharp edge while working on heating or air conditioning pipes.

(3) Excessive CPU usage

Task Manager is the first program to use to find an application that has been using a high proportion of system resources, such as CPU, memory or disk space. This step might not necessarily reveal any problems, however, as some applications perform complex calculations, receive high-speed video or interact with large databases. A virus might also consume resources, so it's important to keep antivirus software up to date.

(4) Slow DNS lookups

DNS translates the common name that identifies server or service names with the internet address that routes a network request. For commonly used names, the matchup is likely stored in the system's DNS cache, so the lookup process is quick. For less commonly used names, the matchup might be stored in a more distant cache, such as the root server of the top-level name, like .com; .org; or a national root, such as .uk.

(5) Duplicate and static IP addresses

Two systems can't share the same IP address in a network. If the network detects duplicate IP addresses, neither system can access the network reliably. Network administrators can use Dynamic Host Configuration Protocol to assign IP addresses to most network devices. DHCP maintains a pool of addresses assigned to the local network and assigns a different address from the pool to each system.

(6) Exhausted IP addresses

Internet addresses are in limited supply, so each service provider is given a supply based on the expected number necessary. The most common type of addresses are IPv4 addresses, which were originally considered sufficient for every system. But with the proliferation of cellphones and other devices, some experts recommend organizations move to IPv6 with 128-bit addresses.

(7) Can't connect to printer

When users can't connect to a printer, the first step is to check whether the printer is plugged in, turned on and has paper. The printer should appear on the Devices and Printers panel in Windows. If it does, check whether the file is in the queue. Users might need to stop and restart the print spooler, the software that stores files until the printer is ready to print them.

(8) Power failure

When users do not have stable power supply which would allow them to work for a long period of time with disruption

(b) How you would use the spelling tool in Microsoft Word to correct any spellings and grammar in the document.

(i) Click on review and then spelling and grammar in the ribbon

(ii) Word checks through the document to see if spellings in document match spellings in the computer's dictionary

(iii) If no match is found the computer suggests alternatives from which one can choose from. Spell checker identifies all words that do not appear in the word processing package's dictionary.

(iv) When using the spell checker always take your time before deciding whether to accept or ignore the suggested change.

(c) Data encryption is the process of converting plain text or data into a coded format, ensuring that only authorized parties can decode and access the information. It uses encryption algorithms like AES (Advanced Encryption Standard) or RSA (Rivest-Shamir-Adleman). Encryption is applied in safeguarding financial data by:

(i) Encrypting files stored on servers to protect against unauthorized access.
(ii) Securing data transmission over networks using protocols like HTTPS.
(iii) Protecting sensitive client and financial records from cyber threats.

SOLUTION FOUR

(a) Outline five (5) uses of the intranet within an organisation

(1) Performance data – can be used distribute and present data
(2) Employment information – dissemination of data
(3) Notice board – for displaying information
(4) Departmental home pages – for accessing company information
(5) Bulletin or newsletters – communicating information
(6) E-mail facilities – used for internal communication

(b) Major difference between a file server and a database server, giving one (1) use case for each in business operations.

- **File Server:** A file server is a computer system that stores and manages files in a network and allows users to access and share files. *Use case*: A business uses a file server to store employee documents and files, which are accessible by all employees over the network.
- **Database Server**: A database server hosts and manages databases and responds to requests for accessing or modifying data in the database. *Use case*: A company uses a database server to store customer information, such as purchase history, which can be accessed by employees to provide personalized customer support.

- Clear differentiation between the two servers
- Clear and relevant use cases for each server

(c) Types of Information Systems that are commonly used in accounting firms other than Management Information System:

(1) Transaction Processing System (TPS): Handles business transactions like payroll processing.
(2) Decision Support System (DSS): Assists in strategic decision-making through data analysis.

(d) List two (2) benefits of computerised Accounting Information System.

List any two (2) benefits of computerised AIS.

(i) Accuracy of processing – at least there should be no arithmetic and misposting errors from journals.
(ii) Speed of processing - Provides real time data.
(iii) Labour economy – leads to significant reduction in head count.
(iv) Information outputs – ability to directly feed AIS to EIS/DSS.
(v) Gives high flexibility on operations

SOLUTION FIVE

(a) **Quorum:**

A quorum is the minimum number of members required to be present at a meeting for it to be officially valid and for decisions to be legally binding.

(b) **Reasons why it is important to send apologies when one is not attending a meeting:**

(1) Shows professionalism and respect – It demonstrates courtesy and responsibility by informing others of your absence.
(2) Helps in quorum determination – Apologies allow the organizers to know in advance if the meeting can proceed or if it should be rescheduled.
(3) Ensures continuity – Sending an apology gives an opportunity to request minutes or updates, ensuring one stays informed about discussions and decisions.
(4) Allows for effective planning of the meeting.

(c) **Notice**

Kopala Investments Ltd

NOTICE

Rescheduled Meeting – (New Meeting Date)

I hope this message finds you well. Due to the low attendance at our previously scheduled meeting on (Original Date), we were unable to proceed as planned. To ensure that all key discussions take place with the necessary quorum, we have rescheduled the meeting to (New Date) at 09:00 hours at Tiloz Hotel.

Your presence is essential, as we will be addressing several important matters that require collective input and decision-making. The agenda for the meeting will include:

- Review of Ongoing Projects
- Financial Updates and Budget Planning
- Upcoming Organizational Activities

To facilitate smooth arrangements, please confirm your attendance by [RSVP Deadline]. If you are unable to attend, kindly send your apologies in advance so that we can make necessary adjustments.

Your cooperation and commitment to this meeting are highly appreciated. Should you have any queries or require further information, feel free to reach out.

Looking forward to your participation.

S. Kolala

Steven Kolala

Accounts Payable Supervisor

Date________________________________

SOLUTION SIX

(a) **Definition of Effective Communication:**

Effective communication is the timely clear, concise, and accurate exchange of information between individuals or groups, ensuring that the intended message is understood as expected.

(b) **Reasons why feedback is important in communication:**

(1) Ensures message clarity – Confirms whether the recipient understood the message correctly or not.
(2) Encourages engagement – Promotes active participation in discussions.
(3) Facilitates improvement – Helps the sender adjust their communication style for better understanding.
(4) Prevents misunderstandings – Detects and resolves misinterpretations early.

(c) **Barriers to effective communication:**

(1) Language barriers – Use of jargon, slang, or different languages can hinder understanding.
(2) Cultural differences – Misinterpretation of gestures, customs, or communication styles.

(3) Physiological barriers – Hearing impairments, speech disorders, or physical conditions that affect communication.

(4) Psychological barriers – Stress, emotions, or biases that prevent clear communication.

(5) Information overload – Too much information at once can confuse the receiver.

CA ZAMBIA PROGRAMME EXAMINATIONS

CA APPLICATION ADVANCED DIPLOMA IN ACCOUNTANCY

CA 2.1: FINANCIAL REPORTING

MONDAY 8 DECEMBER 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

The question in this section is compulsory and must be attempted.

QUESTION ONE – (COMPULSORY)

On 1 May 2024, Papaya Co. acquired 90% of the shares of Santol Co. The consideration consisted of two elements; a share exchange of two shares in Papaya Co. for every three (3) shares acquired in Santol Co. and the issue of a K100 loan note for every 400 shares acquired in Santol Co. Only the loan note consideration and associated interest has been recognized by Papaya Co. At the date of acquisition, shares in papaya Co. had a market value of K4.90 each and shares in Santol Co. had a value of K2.80 each. Below are the summarised draft financial statements of both companies:

Statements of profit or loss for the year ended 30 September 2024:

	Papaya Co.	**Santol Co.**
	K'000	K'000
Revenue	385,200	234,900
Cost of sales	(212,000)	(76,560)
Gross profit	173,200	158,340
Administrative expenses	(104,500)	(67,800)
Distribution costs	(28,200)	(15,600)
Investment income	1,200	0
Operating profit	41,700	74,940
Finance costs	(12,050)	(24,450)
Profit before tax	29,650	50,490
Income tax	(11,150)	(16,350)
Profit for the year	18,500	34,140

Statements of financial position as at 30 September 2024:

	Papaya Co.	**Santol Co.**
	K'000	K'000
Non current assets:		
Property, plant and equipment	400,000	312,000
Intangible assets	143,000	-
Investments	142,000	0
Total non current assets	685,000	312,000
Current assets	213,000	132,000
Total assets	898,000	444,000
Equity and liabilities:		
Equity shares of K1 each	480,000	200,000
Retained earnings	158,800	216,000
	638,800	416,000

Non current liabilities:		
Loan notes	160,000	5,000
Current liabilities	99,200	23,000
Total equity and liabilities	898,000	444,000

The following information is relevant:

(1) At the date of acquisition, the fair value of Santol Co's. net assets were equal to their carrying amounts with the exception of the following:
- Santol's head office building which had a fair value of K90 million in excess of its carrying amount. It had a remaining life of thirty (30) years at the date of acquisition.
- Santol Co's. land which had a fair value of K15 million in excess of its carrying amount.
- Unrecognised deferred tax liability of K3 million. This was estimated to be K5 million at the reporting date on 30 September 2024.

(2) Over the entire year, including the preacquisition period, Santol Co. sold goods to Papaya Co. for K54 million at a margin of 20%. At the year end, Papaya Co. still held K6 million of these goods in inventory. At the year end, Papaya Co. had paid for all the goods except for the final K5 million.

(3) At the start of the year, Papaya Co. purchased a small number of shares in an unrelated company for K43 million. These are included in Papaya's investments at cost. At 30 September 2024, the value of these shares had risen to K48 million. The investment has been classified as a fair value through profit or loss item in accordance with IFRS 9 Financial Instruments.

(4) On 1 April 2024, Papaya Co. also acquired 30% of the equity shares of Apricot Co. for K54 million. Apricot Co's. profit after tax for the year ended 30 September 2024 was K8 million.

(5) Papaya Co. has a policy of accounting for any non controlling interest at fair value. For this purpose, Santol's share price at acquisition can be deemed to be representative of the fair value of the shares held by the non controlling interest.

(6) Consolidated goodwill is considered to be impaired by K2.3 million and investment in Apricot is impaired by K0.5 million at 30 September 2024. Goodwill impairment is treated as an administrative expense.

(7) Papaya Co's. intangible assets include K83 million spent during the year to 30 September 2024 on training of staff in modern manufacturing methods.

(8) Included in investment income of Papaya Co. is K800,000 dividend received from Santol Co. in the year to 30 September 2024.

(9) All items in the statement of profit or loss are deemed to accrue evenly over the year.

Required:

(a) Prepare the consolidated statement of profit or loss for the Papaya Co. group for the year ended 30 September 2024. (22 marks)

(b) Prepare the consolidated statement of financial position for the Papaya Co. group as at 30 September 2024. (18 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in his section.

Attempt ANY THREE (3) questions.

<u>QUESTION TWO</u>

Sitwe Limited (Sitwe) is a manufacturing entity based in Muchinga province. As Chief Accountant of Sitwe, you have been presented with the following trial balance in respect of the year to 31 December 2024:

	K'000	K'000
Share capital (K1 shares)		120,000
Retained earnings (31.12.2023)		173,600
Share premium reserve		75,000
Revaluation reserve		820
Dividends paid	44,500	
Revenue		780,000
Cost of sales	470,150	
Inventory at 31 December 2024	55,120	
Distribution costs	78,070	
Administrative expenses	110,200	
Rental expense	50,180	
Property at Valuation (31.12.2023)	188,300	
Plant and equipment at cost	150,800	
Accumulated depreciation (31.12.2023):		
Plant and equipment		38,500
Finance costs	6,000	
Trade receivables	48,500	
Trade payables		32,100
Bank	42,800	
Current tax payable	11,200	
Deferred tax		7,800
10% convertible loan notes		28,000
	1,255,820	1,255,820

The following additional information is necessary in preparing Sitwe's financial statements for the year ended 31 December 2024:

(1) The revenue figure in the trial balance above includes credit sales amounting to K42 million made on 1 January 2024 for settlement on 31 December 2025. Sitwe has included the full

invoice amount in revenue with a corresponding amount in trade receivables. Sitwe's cost of capital is 8%. It has been ascertained that the effect of discounting is material in accordance with IFRS 15 Revenue from Contracts with Customers.

(2) Sitwe applies the IAS 16 property plant and equipment, revaluation model in measuring its property. The property, which was acquired on 1 January 2020 at a cost of K203.4 million, is being depreciated over a total useful economic life of 50 years. It was last revalued on 31 December 2023 and is yet to be revalued to a fair value of K182.5 million at 31 December 2024.

The company does not make annual transfers to retained earnings in respect of realised revaluation gains.

(3) The rental expense in the trial balance is in respect of leasing plant from a third party. The lease contract commenced on 1 January 2024 and is for a period of three (3) years. Sitwe initially paid a deposit amounting to K30.18 million on 1 January 2024. Additionally, Sitwe is required to pay K20 million per annum on 31 December each year over the lease term. The rental expense amount in the trial balance is composed of the initial deposit and the first annual rent. The interest rate implicit in the lease is 10% and the following present value factors are applicable at 10%:

End of year	**Present value factor**	
1	0.909	
2	0.826	
3	0.751	
3 year Cumulative		2.486

The leased plant had a remaining useful economic life of five (5) years on 1 January 2024.

(4) Plant and equipment (excluding right of use assets) is depreciated at 20% per annum reducing balance basis.

Depreciation or amortisation charge in respect of all items of property, plant and equipment, and right of use assets is presented within cost of sales.

(5) The 10% convertible loan notes included in the trial balance were issued on 1 January 2024 at par. The amount in the trial balance is after deducting issue costs from the gross issue proceeds. Issue costs amounted to K2 million. Interest payments on the notes are due on 31 December each year over the three (3) year term to maturity. Interest paid on 31 December 2024 has been included in finance costs in the above trial balance.

The loan note holders are entitled to convert the notes into equity shares at a rate of 20 shares for every $100 coupon value of the notes at any time after 31 December 2025. Any loan notes not converted before maturity will be redeemed at par upon maturity. Sitwe was in a position to issue similar debt, without conversion rights, at a gross market interest rate (before issue costs) of 12%. The following present value factors at the given rates may apply:

Present value factor at:

End of year	10%	12%
1	0.909	0.893
2	0.826	0.797
3	0.751	0.712
3 year Cumulative	2.486	2.402

The effective interest rate on the liability component of the loan notes after incorporating issue costs is 14.9%.

1. On 1 October 2024, Sitwe made a rights issue of 1 rights share for every 5 existing shares at a premium of 75%. The rights were fully subscribed for by the shareholders and the share issue has been correctly accounted for in arriving at the above trial balance.

2. A provision for Sitwe's income tax liability on taxable profits for the year ended 31 December 2024 has been estimated at K25.2 million. The balance on the current tax account in the trial balance relates to the under/over provision for the current tax for the previous period. The provision for the deferred tax liability must be reduced by K3.8 million at 31 December 2024.

Required:

(a) Prepare Sitwe's statement of profit or loss and other comprehensive for the year to 31 December 2024. (9 marks)

(b) Prepare Sitwe's statement of changes in equity for the year to 31 December 2024.

(4 marks)

(c) Prepare Sitwe's statement of financial position as at 31 December 2024. (7 years)

[Total 20 Marks]

QUESTION THREE

The following financial statements relate to Malama Plc, a company involved in the production and supply of variety of cleaning materials:

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

	K'000
Revenue	12,420
Cost of sales	(8,860)
Gross profit	3,560
Income from and gains on investment property	250
Distribution costs	(395)
Administrative expenses (note (ii))	(835)
Finance costs	(240)
Profit before tax	2,340
Income tax expense	(965)
Profit for the year	1,375
Other comprehensive income:	
Gains on property revaluation	(100)
Total comprehensive income	1,275

Statements of financial position as at 31 December:

	2024		2023	
Assets	K'000	K'000	K'000	K'000
Non-current assets:				
Property, plant and equipment (i)		6,120		4,300
Investment property		850		940
Current assets:		6,970		5,240
Inventory	1,235		1,500	
Trade receivables	940		1,000	
Bank	1,225	3,400	300	2,800
Total assets		10,370		8,040
Equity and liabilities:				
Equity shares of K0.40 each (note (ii))		2,000		
Share premium	1,200		nil	
Revaluation reserve	40		140	
Retained earnings	2,860	4,100	2,500	2,640
	6,100		3,840	
Non-current liabilities:				
Lease Obligations	250		350	
Government Grant	420		350	
10% loan notes	nil		650	
Deferred tax	105	775	160	1,510
Current liabilities:				
Trade payables	2,500		2,000	
Bank overdraft	120		140	
Lease Obligations	125		150	
Government Grant	350		300	
Current tax payable	400	3,495	100	2,690
Total equity and liabilities		10,370		8,040

The following supporting information is available:

(i) An item of plant with a carrying amount of K520,000 was sold at a profit of K160,000 during the year. Depreciation of K560,000 was charged on property, plant and equipment in the year ended 31 December 2024.

Property plant and equipment includes Right of Use Assets (ROUA) recognised in accordance with IFRS 16 Leases. All lease payment instalments are in arrears on 31 December each year in accordance with lease agreement. Cash paid during the year to 31 December 2024 to redeem the principal component of lease obligations amounted to K400,000.

Malama uses the fair value model in IAS 40 Investment Property. There were no purchases or sales of investment property during the year.

(ii) There was a share issue for cash during the year.

(iii) During May 2024, Malama Plc received in cash a grant from the Government in respect of the acquisition of production equipment. Malama's policy is to recognise capital grants as income over the useful economic life of the related assets. Grant income amounting to K250,000 was recognised during the year to 31 December 2024 in profit or loss.

(iv) Malama paid dividends during the year ended 31 December 2024.

Required:

Prepare a statement of cash flows for Malama Plc for the year to 31 December 2024 using the indirect method in accordance with IAS 7 Statement of cash flows.

[Total: 20 Marks]

QUESTION FOUR

Lakelo Plc (Lakelo) is a manufacturing entity based in Mongu. The Directors of Lakelo have approached you seeking advice on the accounting treatment of several transactions as they finalise financial statements for the year to 31 December 2024.

They have brought to your attention the following transactions:

(a) **Transaction one**

On 1 January 2024, Lakelo Plc issued 2 million 8% K10 redeemable preference shares at a premium of 5%. Issue costs amounted to K0.5 million.

The shares pay dividends on 31 December each year over their term and are redeemable at par on 31 December 2026. The effective interest rate on the shares over the three (3) year term to maturity is 7.05%. (5 marks)

(b) **Transaction two**

On 1 January 2024, Lakelo acquired 5 million 15% K1 GRZ bonds at a discount of 6%. Broker fees (transaction costs) paid by Lakelo on that date amounted to K0.2 million.

The remaining term to maturity of the bonds on 1 January 2024 was 5 years. The bonds, which pay interest on 31 December each year over their term, are redeemable at par upon maturity. Lakelo's business model for this type of investment is to hold it till maturity in order to realise the contractual cash flows. The effective interest rate on the bonds over the five (5) year remaining term to maturity is 15.61%. (5 marks)

(c) **Transaction three**

During September 2024, one of Lakelo's customers commenced a court action suing Lakelo for allegedly supplying them with faulty goods claiming compensation amounting to K1.2 million. As at 31 December 2024, the case is yet to be decided by the courts. However, Lakelo's lawyers have advised that there is a 70% chance that the courts will decide in favour of the customer and that the possible amounts in respect of compensation, based on the lawyers' past experience, are:

Possible amount (K'm)	Probability
0.8	40%
0.95	30%
1.1	30%

Further, the lawyers have intimated that such cases take long to be decided by the courts and that this particular case is likely to be completed in two (2) years' time. Lakelo's cost of capital is 12%. The total legal costs in defending this action to be incurred by Lakelo, payable upon conclusion of the case, have been estimated at K0.25 million. (5 marks)

(d) **Transaction four**

Lakelo owns an item of manufacturing plant that it acquired on 1 January 2021 at a cost of K2 million. The plant was estimated to have a total useful economic life of 10 years with a nil residual value.

However, due to changes in the product range offered to its markets, Lakelo stopped using the plant effective 1 April 2023 and correctly classified it as held for sale in accordance with IFRS 5 Non-current Assets Held for Sale and Discontinued Operations from that date. The fair value less costs to sell of the plant on 1 April 2023 and on 31 December 2023 was K1.7 million and K1.3 million respectively.

As a result of its failure to sell the plant, Lakelo has found alternative use for the plant and started using it for production on 1 October 2024. The plant's fair value less costs to sell and its value in use was estimated at K1.1 million and K1.2 million respectively. The estimated total useful economic life from the date of its purchase has not changed.

The plant was correctly accounted for in the past, up to 31 December 2023. However, no entries have been made in respect of the plant in the draft financial statements for the current period. (5 marks)

Required:

Explain the accounting treatment of each of the above transactions according to the relevant accounting standards, showing amounts that Lakelo must report in its financial statements for the year ended 31 December 2024.

[Total: 20 Marks]

QUESTION FIVE

The International Accounting Standards Board (IASB) has achieved huge milestones in the development of a high quality financial reporting framework that would be universally acceptable globally. From its inception, the board acknowledged that the development of high quality financial reporting standards depends, to a large extent, on the quality of a conceptual framework from which the standards derive. To that end, the IASB commenced a project to revise the Framework for the Preparation and Presentation of Financial Statements which it had inherited from the International Accounting Standards Committee (IASC). The revised Conceptual Framework for Financial Reporting was initially published in 2010 and subsequently revised in 2018.

Required:

(a) Discuss the nature and purpose of the IASB's Conceptual Framework for Financial Reporting. (5 marks)

(b) Chapter 2 of the Conceptual Framework identifies six (6) qualitative characteristics of useful financial information. Explain the qualitative characteristics and their inter relationships. (10 marks)

(c) Explain the two (2) measurement bases identified in chapter 6 of the conceptual framework and discuss the factors to consider in selecting a measurement basis. (5 marks)

[Total 20 Marks]

END OF PAPER

CA 2.1 FINANCIAL REPORTING
SUGGESTED SOLUTIONS
SOLUTION ONE

(a) Papaya group consolidated statement of profit or loss and other comprehensive income for the year ended 30 September 2024

	K'000
Revenue (385,200+[5/12*234,900]-22,500 W5)	460,575
COS (212,000+[5/12*76,560]-22,500+1,250W3+1,200W5	(223,850)
Gross profit	236,725
Administrative expenses (104,500+[5/12*67,800]+83,000+2,300W2)	(218,050)
Distribution costs (28,200+[5/12*15,600])	(34,700)
Investment income (1,200 – 800)	400
Fair value gain of financial asset W6	5,000
Operating profit	(10,625)
Finance cost (12,050+[5/12*24,450])	(22,238)
P's share of Apricot (30%*[6/12*8,000]-500 impairment	700
Profit before tax	(32,163)
Income tax (11,150+[5/12*16,350] + 2,000)	(19,963)
Profit for the year	(52,126)
Profit for the year attributable to:	
Owners of the parent (balancing figure)	(52,874)
NCI (W12)	748
	(52,126)

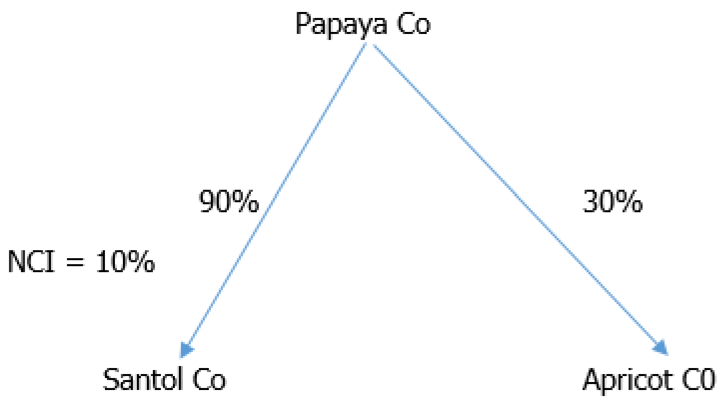
(b) Papaya group consolidated statement of financial position as at 30 September 2024

	K'000
Non-current assets:	
Property, plant and equipment (400,000+312,000+88,750W3+15,000W3)	815,750
Goodwill (W2)	182,925
Other intangible assets (143,000-83,000)	60,000
Financial asset (W6)	48,000

Carrying amount of investment in Apricot (W8)	54,700
Total non-current assets	1,161,375
Current assets (213,000+132,000-1,200W5-5,000W5)	338,800
	1,500,175
Equity and liabilities:	
Equity:	
Equity shares of K1 each (480,000+120,000 W11)	600,000
Share premium (W11)	468,000
Retained earnings (W10)	88,228
Total equity	1,156,228
Non-controlling interest (W9)	56,747
	1,212,975
Non-current liabilities:	
Loan notes (160,000+5,000)	165,000
Deferred tax	5,000
Total non-current liabilities	170,000
Current liabilities (99,200+23,000-5,000)	117,200
Total equity and liabilities	1,500,175

WORKINGS

(1) Group structure



(2) Goodwill on acquisition of Santol Co:

	K'000	K'000
Purchase consideration:		
Share exchange(90%*200,000/3shares*2shares*K4.9		588,000
Loan note (90%*200,000/400 shares*K100)		45,000
NCI at acquisition (10%*K200,000/K1)*K2.8)		56,000
		689,000
Less fair value of net assets of Santol Co at acquisition:		
Share capital	200,000	
Pre-acquisition retained earnings (W4)	201,775	
Fair value adjustments:		
land	15,000	
Head office building	90,000	
Deferred tax liability	(3,000)	(503,775)
Gross goodwill		185,225
Less impairment loss		(2,300)
Net goodwill		182,925

(3) Fair value adjustments:

	At acquisition	movement	At reporting
	K'000	K'000	K'000

Head office building	90,000	*1,250	88,750
land	15,000	-	15,000
Deferred tax liability	(3,000)	(2,000)	(5,000)

Dep'n of building = 90,000/30yrs*5/12=1,250

(4) Pre-acquisition retained earnings:

1 October 2023 ←→ 30 September 2024

Profit for the twelve months 34,140

Acquisition was on 1 May 2024, ie 5 months to the year end

I May 2024 ←→ 30 September 2024

5/12*34,140=14,225

At reporting date ←→ 216,000

Therefore, at acquisition, 201,775 (216,000-14,225)

(5) Provision for unrealized profit on intra-group sales:

Sales in the post-acquisition period =5/12*54,000=22,500

PUP in closing inventory =20/120*6,000=1,200

Intra-group balance cancellation:

Dr group payables 5,000

Cr group receivables 5,000

(6) Financial asset equity instrument:

	K'000
Cost b/f(142,000-45,000W2-54,000)	43,000
Fair value gain (balancing figure)	5,000
Fair value c/f	48,000

(7) Papaya's share of profits in Apricot

	K'000
30%*(6/12*8,000)	1,200
Less impairment loss	(500)
	700

(8) Carrying amount of investment in Apricot

K'000

Cost of investment	54,000
Share of post-acquisition profit of Apricot 30%*(6/12*8,000)	1,200
Less impairment loss	(500)
	54,700

(9) Non-controlling interest for statement of financial position at reporting date:

	K'000
NCI at acquisition (W2)	56,000
NCI share of post-acquisition retained earnings of Santol Co (10%*9775	977
NCI share of impairment loss (10%*2,300)	(230)
	56,747

(10) Group retained earnings

	Papaya Co	Santol Co	Apricot Co
	K'000	K'000	K'000
Per draft statement of financial position	158,800	216,000	-
Less pre-acquisition retained earnings (W4)		(201,775	-
Unadjusted post-acquisition retained earnings			4,000
Fair value depreciation of the head office (W3)		(1,250)	
Fair) value movement on deferred tax liability (W3		(2,000)	
PUP W5		(1,200)	
FV gain of a financial asset	5,000	9,775	
Staff training cost	(83,000)		
Share of Santol (90%*9,775)	8,798		
Share of Apricot (4,000 x 6/12 x 30%)	1,200		
Impairment loss of goodwill (90%*2,300)	(2,070)		
Impairment loss of investment in Apricot	(500)		
	88,228		

(11) Share exchange consideration values:

	'000
Number of shares issued to holders in Santol (90%*200,000 shares/3*2*	120,000
Nominal value of shares (120,000*K1)	K120,000
Premium value of shares (120,000*K3.9)	K468,000

(12) Non-controlling interest in profit for the year

	K'000
NCI in the post-acquisition profit for the year of Santol Co (10%*5/12*34,140)	1,423
NCI share of PUP (W5) (10%*1,200)	(120)
NCI share of FV depreciation (10%*1,250 W3	(125)
NCI share of FV movement in deferred tax (10%*2,000) W3	(200)
NCI share of impairment loss of Goodwill (10%*2,300) W2	(230)
	748

(13) Cost of sales

	K'000
Papaya	212,000
Santol (76,560 x 5/12)	31,900
Intra-group sales (54,000 x 5/12)	(22,500)
Unrealized profits (6,000 x 20%)	1,200
Depreciation on fair value adjustments (90,000/30yrs*5/12)	1,250
	223,850

SOLUTION TWO

(a) Statement of profit or loss and other comprehensive income for the year ended 31 December 2024

		K'000
Revenue	(W1)	774,008
Cost of sales	(W2)	(524,223)
Gross profit		249,785
Distribution costs		(78,070)
Administrative expense		(110,200)
Operating profit		61,515
Investment income (on receivables)	36008.2*8%	2,881
Finance costs	(W5)	(11,945)
Profit before tax		52,451
Income tax expense	(W6)	(32,600)
Profit for the year		19,851
Other comprehensive income:		
Revaluation of PPE	W3)	(820)
Other comprehensive income for the year		
Total comprehensive income		19,031

(b) Statement of changes in equity for the year ended 31 December 2024

	Share capital	Share premium	Retained earnings	Revaluation reserves	Share option	Total equity
	K'000	K'000	K'000	K'000	K'000	K'000
Balances at 1 January	100,000	60,000	173,600	820	-	334,420
Total comprehensive income			19,851	(820)		19,031
Equity option - debt					1,338	1,338
Dividends paid			(44,500)			(44,500)
Issue of shares	20,000	15,000	-	-	-	35,000
Balances at 31 Dec	120,000	75,000	148,951	0	1,338	345,289

(c) Statement of financial position as at 31 December 2024

Assets	K'000	K'000
Non-current assets		
Property plant and equipment		325,607
		325,607
Current assets		
Inventory	55,120	
Trade receivables	45,389	
Cash and cash equivalents	42,800	143,309
Total assets		468,916
Equity and liabilities		
Equity		
Share capital (K1 shares)		120,000
Share premium		75,000
Retained earnings		148,951
Share options reserve		1,338
Revaluation reserves		0
		345,289
Non-current liabilities		
10% loan notes	27,635	
Lease liabilities	18,161	
Deferred tax (7,800 – 3,800)	4,000	49,796
Current liabilities		
Trade payables	32,100	
Current tax	25,200	
Lease liabilities	16,531	73,831
Total equity and liabilities		468,916

Workings

Workings to the SPLOCI

W1. Revenue

		K'000
Given amount		780,000
Adjustment account of credit sale not discounted:		
Correct amount to recognise	(42,000*1.08^-2)	36,008
Remove amount previously included		(42,000)
		774,008

W2. Cost of sales

Given amount		470,150
Loss on revaluation of property	(W9)	886
Depreciation/Amortisation of :		
Property	(188,300/46)	4,094
Plant and equipment	(150,800x38,500)*20%	22,460
Right of use asset (79,900/3 years)	(W9)	26,633
		524,223

W3. Lease Liability

Initial lease liability at 1.1.2024	(20,000*2.486)	49,720
Interest implicit in the lease (49,720 x 10%)		4,972
Lease rental paid		(20,000)
Lease liability at 31 December 2024		34,692
Non-current liability [(34,692 x 1.1) – 20,000]		18,161
Current liability (34,692 – 18,161)		16,531

W4. Finance costs

Given amount		6,000
Finance cost on lease liability (W3)		4,972
Finance cost on convertible loan notes (W5)	(3,973 – 3,000)	973
		11,945

W5. Convertible loan notes

Gross issue proceeds/Coupon value	(28,000+2,000)	30,000
Liability component of gross issue proceeds:		
- PV of interest cash flows	30000*10%*2.402	7,206
- PV of redemption of principal amount	30000*0.712	21,360
		28,566
Issue costs allocated to liability component	2,000*28,566/30,000	(1,904)
Initial carrying amount of liability component		26,662
Finance cost for the year	26,662*14.9%	3,973
Interest paid (30,000 x 10%)		(3,000)
Carrying amount at 31 December 2024		27,635

W6 Equity option on convertible bonds

Gross proceeds from issue		30,000
Less amount attributable to liability		(28,566)

	Equity option before issue costs	1,434
	Issue costs (2,000*1,434/30,000)	(96)
		1,338
W7	Proceeds from rights issue	
	Nominal value of rights issue (120,000 x 1/6)	20,000
	Share premium (20,000 x 75%)	15,000
		35,000
	Opening balances:	
	Share capital (120,000 – 20,000)	100,000
	Share premium (75,000 – 15,000)	60,000

W8.	**Income tax expense**	
	Current tax expense:	
	Provision for liability for y/e 31.12.2024	25,200
	Under provision for the previous year	11,200
	Deferred tax expense:	
	Required decrease in deferred tax liability	(3,800)
		32,600

W9. Property, plant & equipment

	Property K'000	Plant & Equipment K'000	ROU Asset K'000	Total PPE K'000
Cost/Valuation balance b/f	188,300	150,800	-	339,100
Accumulated dep balance b/f	-	(38,500)	-	(38,500)
	188,300	112,300	-	300,600
Additions (49,720 + 30,180)	-	-	79,900	79,900
	188,300	112,300	79,900	380,500
Depreciation for the year	(4,094)	(22,460)	(26,633)	(55,187)
NBV at 31 December 2024	184,206	89,840	53,267	327,313
Fair value loss (balancing fig)	(1,706)	-	-	(1,706)
Fair value at 31 December	182,500	87,840	53,267	325,607

Revaluation loss:	
Other comprehensive income	820
Profit or loss (1,706 – 820)	886

W10.	**Trade receivables**		
	Given amount		48,500
	Adjustment to long term receivable:		
	Discount due to discounting	[(42,000^1.08^-2) – 42,000]	(5,992)
	Finance income	(42,000*1.08^-2)*8%	2,881
			45,389

SOLUTION THREE

(a) **Malama Plc.'s**

Statement of Cashflows for the year ended 31 December 2024

	K'000	K'000
Cash flows from operating activities		
Profit before tax		2,340
Adjust for:		
Depreciation expense		560
Profit on disposal		(160)
Finance cost		240
Income and gains on investment properties		(250)
Grant amortization		(250)
		2,480
Decrease in inventory (1,500-1,235)		265
Decrease in receivables (1,000-940)		60
Increase in payables		500
Cash generated from operations		3,305
Interest paid		(240)
Tax paid		(720)
Net cash inflow from operating activities		2,345
Cash flows from investing activities:		
Cash paid to acquire PPE	(2,725)	
Proceed from sale of PPE (520 + 160)	680	
Investment income from investment properties	340	
Grant received	370	
Net cash out on investing activities		(1,335)
Cash flows from financing activities:		
Proceeds from the issue of shares (800 + 1,200)	2,000	
Dividends paid	(1,015)	
Lease rental paid	(400)	
Loan notes paid	(650)	
Net cash out on financing activities		(65)
Net increase in cash and cash equivalents		945
Cash and cash equivalents at start		160

Cash and cash equivalents at end (1,225 – 120) 1,105

W1. LEASE OBLIGATION

	K'000		K'000
		Balance b/d	350
Bank -Cash paid	400	Balance b/d	150
Balance b/c	250	Plant Property & Equipment (ROUA)	275
Balance b/c	125		
	775		775

W2. GOVT GRANT ACCOUNT

	K'000		K'000
		Balance b/d	350
SPL -Income recognised	250	Balance b/d	300
Balance b/c	420	**Bank** -cash received	370
Balance b/c	350		
	1,020		1,020

W3. INCOME TAX LIABILTY

	K'000		K'000
		Balance b/f (160 + 100)	260
Bank	720	Profit or loss expense	965
Balance c/d (105 + 400)	555		
	1,225		1,225

W4. PLANT PROPERTY & EQUIP ACCOUNT

	K000		K'000
Balance b/d	4,300	Revaluation	100
Lease obligation liab (ROUA)	275	Disposal -Plant	520
Bank (balancing figure)	2,725	Depreciation	560
		Balance b/c	6,120
	7,300		7,300

W5. REVALUATION

			K'000
K'000		Balance b/c	140
Plant, Property & Equip a/c	100		
Balance c/d	40		
	140		140

W6. DISPOSAL

	K'000		K000
Plant property & Equip	520	**Bank**	680
PL -profit on disposal	160		
	680		680

W7. INVESTMENT PROPERTY

	K'000		'000
Balance b/c	940	**Bank**	340
PL -Income recog	250		
		Balance c/d	850
	1,190		1,190

W8. RETAINED EARNINGS

	K'000		K'000

Dividends paid (bal fig)	1,015	Balance b/d	2,500
Balance c/f	2,860	Profit for the year	1,375
	3,875		3,875

SOLUTION TO FOUR

Lakelo Plc (Lakelo) must account for the transactions as follows in finalising its financial statements for the year to 31 December 2024:

(a) **Transaction one**

The preference shares must be accounted for in accordance with IAS 32 Financial Instruments Presentation and IFRS 9 Financial Instruments as they appear to meet the definition of a financial instrument (a contract presenting a financial instrument asset to one entity and a financial liability or equity instrument to the other entity).

The preference shares must be presented as a liability because they present obligation to transfer cash through redemption (and dividends) payments in accordance with IAS 32.

The preference shares are a non-derivative liability and hence be classified as an amortised cost item.

Therefore, they must initially be measured at fair value (issue proceeds) including transaction costs (issue costs) as follows:

	K'm
Gross issue proceeds 2m*K10*105%	21
Issue costs	(0.5)
Initial carrying amount at 1.1.2024	20.5

Subsequently, the shares will be carried at amortised cost using the effective interest rate of 7.05% as follows:

		K'm	
Carrying amt at 1.1.2024		20.5	
Finance cost to charge in PL for y/e 31.12.24	7.05%*20.5	1.45	
Cash paid at 31.12.24	8%*20		(1.6)
Carrying amount to report within liabilities at 31.12.24		20.35	

(b) **Transaction two**

The investment in the GRZ bonds is a financial asset it presents a right to receive cash. The asset must therefore be accounted in accordance with IFRS 9.

The bonds must be classified as an amortised cost item because they are a debt instrument asset with predetermined contractual cash flows for which the business model of the investor is to realise contractual cash flows.

Therefore, they must initially be measured at fair value (purchase cost) including transaction costs (broker fees) as follows:

		K'm
Purchase cost	5million*K1*94%	4.7
Broker fees		0.2
Initial carrying amount at 1.1.2024		4.9

Subsequently, the bonds will be carried at amortised cost using the effective interest rate of 15.61% as follows:

		K'm	
Carrying amt at 1.1.2024		4.9	
Finance income to credit in PL for y/e 31.12.24	15.61% x 4.9	0.76	
Cash received at 31.12.24	15%*5		(0.75)
Carrying amount to report within assets at 31.12.24		4.91	

(c) **Transaction three**

The court action by the customer presents potential liabilities arising from the obligation to pay compensation and the legal costs. It must therefore be accounted for under IAS 37 Provisions, Contingent Assets and Contingent Liabilities.

IAS 37 requires that an entity must recognise a provision where a present obligation (as a result of a past transaction) exists, it is probable (likelihood exceeding 50%) that economic benefits will be transferred and the amount can be reliably measured. Lakelo must recognise a liability in respect of the compensation based on the lawyers' probability estimate of 70%. Lakelo must also recognise a provision in respect of the legal costs which will be incurred in defending the action.

IAS 37 guides that provisions in respect of specific events or transactions must be measured at the most likely amounts. In this case, the provision for compensation must be measured at the most likely amount (amount with highest probability) of K0.8 million. The provision for legal costs has been estimated at K0.25 million. Further, IAS 37 requires that provisions must be measured at present value where the impact of discounting is material.

The provisions to report within non-current liabilities (settlement is at least 2 years later) in the SFP at 31.12.24 after discounting will be K0.84 million (i.e. [0.8+0.25] *1.12^-2). A corresponding amount of K0.84 must be charged in PL for the y/e 31.12.24.

(d) **Transaction four**

Following classification of the plant as HFS, Lakelo had subsequently correctly stopped depreciating the plant and measured it at the lower of the carrying amount on 1.4.23 (just prior to classification as HFS) and its net fair value. At 31.12.23, the plant had been reported at a carrying amount equal to the lower of:

		K'm
- Net FV at 1.04.23		1.7; and
- Carrying amt at 1.4.23	(2-2/10*2.25)	1.55.

As at 1 April 2023, the carrying value is K1.55 million. As at 31 December 2023, the plant should be measured at K1.3 million and impairment loss of K0.25 million should be recognised. Therefore, the carrying amount at 31.12.23 (also b/d on 1.1.24) was K1.3 million.

Prior to reversal of classification as HFS, the plant must not be depreciated in the 9 months to 30.9.24. Therefore, its carrying amount prior to reversal of classification as HFS on 1.10.24 was K1.3 million.

Upon reversal of classification as HFS on 1.10.24, the plant's carrying amount must be adjusted to what would be the carrying amount if the asset was never classified as HFS but within the IAS 36 recoverable amount as follows:

		K'm
Carrying amount per IAS 16 at 1.10.24	(2-2/10*3.75)	1.25
Recoverable amount at 1.10.24		1.2

Therefore, carrying amount upon reversal of HFS classification on 1.10.24 must be K1.2 million.

The carrying amount of K1.3 million just prior to reversal of classification must therefore be reduced by K0.1 million to K1.2 million. The K0.1 million must be charged to PL for the year to 31.12.24.

Lakelo must depreciate the plant subsequent to 1.10.24. This will give a depreciation charge to PL for the y/e 31.12.24, in the last 3 months, equal to K0.048 million (i.e. K1.2/6.25*3/12).

The plant's carrying amount in the SFP at 31.12.24 will be K1.152 million (i.e. 1.2-0.048).

SOLUTION FIVE

(a) The conceptual framework for financial reporting is a general body of knowledge that underpins financial reporting practice. It provides general principles which are the basis for specific accounting treatment of transactions prescribed by accounting standards.

The Framework's purpose is to assist the IASB in developing and revising IFRSs that are based on consistent concepts, to help preparers to develop consistent accounting policies for areas that are not covered by a standard or where there is choice of accounting policy, and to assist all parties to understand and interpret IFRS. In the absence of a Standard or an Interpretation that specifically applies to a transaction, management must use its judgement in developing and applying an accounting policy that results in information that is relevant and reliable. In making that judgement, the framework requires management to consider the definitions, recognition criteria, and measurement concepts for assets, liabilities, income, and expenses in the Framework.

The Framework is not a Standard and does not override any specific IFRS. If the IASB decides to issue a new or revised pronouncement that is in conflict with the Framework, the IASB must highlight the fact and explain the reasons for the departure in the basis for conclusions.

(b) The qualitative characteristics of useful financial reporting identify the types of information are likely to be most useful to users in making decisions about the reporting entity based on information in its financial report. The qualitative characteristics apply equally to financial information in general purpose financial reports as well as to financial information provided in other ways. Financial information is useful when it is **relevant** and **represents faithfully** what it purports to represent. The usefulness of financial information is enhanced if it is **comparable**, **verifiable, timely** and **understandable**.

Fundamental qualitative characteristics

Relevance and faithful representation are the fundamental qualitative characteristics of useful financial information.

Relevance

Relevant financial information can make a difference in the decisions made by users. Financial information can make a difference in decisions if it has predictive value, confirmatory value, or both. The predictive value and confirmatory value of financial information are interrelated. **Materiality** is an entity-specific aspect of relevance based on the nature or magnitude (or both) of the items to which the information relates in the context of an individual entity's financial report.

Faithful representation

To be useful, financial information must not only be relevant, it must also represent faithfully the phenomena it purports to represent. Faithful representation means representation of the substance of an economic phenomenon instead of representation of its legal form only.

A faithful representation seeks to maximize the underlying characteristics of completeness, neutrality and freedom from error. A neutral depiction is supported by the exercise of **prudence**. Prudence is the exercise of caution when making judgements under conditions of uncertainty.

Applying the fundamental qualitative characteristics

Information must be both relevant and faithfully represented if it is to be useful. [2.20]

Enhancing qualitative characteristics

Comparability, **verifiability**, **timeliness** and **understandability** are qualitative characteristics that enhance the usefulness of information that is relevant and faithfully represented.

Comparability

Information about a reporting entity is more useful if it can be compared with a similar information about other entities and with similar information about the same entity for another period or another date. Comparability enables users to identify and understand similarities in, and differences among, items.

Verifiability

Verifiability helps to assure users that information represents faithfully the economic phenomena it purports to represent. Verifiability means that different knowledgeable and independent observers could reach consensus, although not necessarily complete agreement, that a particular depiction is a faithful representation.

Timeliness

Timeliness means that information is available to decision-makers in time to be capable of influencing their decisions.

Understandability

Classifying, characterizing and presenting information clearly and concisely makes it understandable. While some phenomena are inherently complex and cannot be made easy to understand, to exclude such information would make financial reports incomplete and potentially misleading. Financial reports are prepared for users who have a reasonable knowledge of business and economic activities and who review and analyse the information with diligence.

Applying the enhancing qualitative characteristics

Enhancing qualitative characteristics should be maximized to the extent necessary. However, enhancing qualitative characteristics (either individually or collectively) cannot render information useful if that information is irrelevant or not represented faithfully.

The cost constraint on useful financial reporting

Cost is a pervasive constraint on the information that can be provided by general purpose financial reporting. Reporting such information imposes costs and those costs should be justified by the benefits of reporting that information. The IASB assesses costs and benefits in relation to financial reporting generally, and not solely in relation to individual reporting entities. The IASB will consider whether different sizes of entities and other factors justify different reporting requirements in certain situations.

(c) Measurement involves assigning monetary amounts at which the elements of the financial statements are to be recognised and reported.

The IFRS Framework acknowledges that a variety of measurement bases are used today to different degrees and in varying combinations in financial statements, including:

- Historical cost
- Current cost
- Net realisable (settlement) value
- Present value (discounted)

Historical cost is the measurement basis most commonly used today, but it is usually combined with other measurement bases. The IFRS Framework does not include concepts or principles for selecting which measurement basis should be used for particular elements of financial statements or in particular circumstances. Individual standards and interpretations do provide this guidance, however.

CA ZAMBIA PROGRAMME EXAMINATIONS

CA APPLICATION ADVANCED DIPLOMA IN ACCOUNTANCY

CA 2.2: MANAGEMENT ACCOUNTING

TUESDAY 9 DECEMBER 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)

Highlander Ltd (H Ltd) is a soya fertiliser manufacturing business, which has the following budgeted and actual statement of profit or loss for the year ended 30 June 2025 prepared using the absorption costing system. The absorption costing system has three (3) stages, i.e. overhead allocation, overhead apportionment and overhead absorption.

	Budget		Actual	
	K'000	**K'000**	**K'000**	**K'000**
Sales		24,000		24,700
Cost of sales:				
Production costs	22,000		22,100	
Closing inventory	(4,400)		(5,950)	
		17,600		16,150
		6,400		8,550
Less expenses:				
Administration		(1,800)		(2,000)
Selling		(2,200)		(2 400)
Net profit		2,400		4,150

The following additional information has been provided:

1. There were no inventories at the beginning of the year.
2. The budgeted selling price per bag was K600 whereas the actual selling price per bag for the year was K650.
3. The standard and actual production costs per bag are as follows:

	Standard	Actual
	K	
Direct materials (50 kg)	160	Direct materials (55 kg @ K3/kg)
Direct labour (2 hours)	180	Direct labour (1.5 hours @ K100/hour)
Variable overheads (2 hours)	60	Variable overheads (1.5 hrs @K40/hour)
Fixed overheads	40	Fixed overheads K50 per bag
	440	

4. Fixed production costs are budgeted at K2,000,000 for the year and absorbed on the basis of direct labour hours.
5. All administration and selling expenses are fixed costs.

Required:

(a) Calculate the budgeted overhead absorption rate per direct labour hour. (2 marks)

(b) Distinguish between overhead allocation and overhead absorption. (2 marks)

(c) Explain the difference in how absorption and marginal costing separate costs.

(2 marks)

(d) Calculate the actual production cost per bag based on marginal costing. (2 marks)

(e) Prepare the actual statement of profit or loss under marginal costing for the year ended 30 June 2025. (8 marks)

(f) Explain why there is a difference in the actual profits reported between the absorption and marginal costing systems for H Ltd. (4 marks)

(g) Calculate the following direct cost variances for the year 2025 on basis of absorption costing:

(i) Direct material price variance

(ii) Direct material usage variance

(iii) Direct labour rate variance

(iv) Direct labour efficiency variance

(v) Variable production expenditure variance

(vi) Variable production efficiency variance

(12 marks)

Management of H Ltd will seek to use variance analysis as a method of control.

(h) Explain any four (4) factors that management of H Ltd should consider in investigating a variance.

(8 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) Optional Scenario Questions in this section.

Attempt any THREE (3) questions.

QUESTION TWO

Ziba Zako Ltd (ZZ Ltd) owns a factory in Lusaka and manufactures four products A, B, C and D. Direct costs of production are estimated as follows:

	A	B	C	D
	K	K	K	K
Materials	72	76	84	48
Labour:				
Assembly(K8 per hour)	16	24	32	32
Machinists (K12 per hour)	24	48	36	72

The assembly hours available for the whole year are 600,000.
Total fixed costs are dependent on the levels of output as follows:

Production (units)	Total fixed costs (K)
Up to 100,000	1,600,000
100,000 to 150,000	2,000,000
150,000 to 200,000	2,400,000

The manager estimates that the demand for their products in the next year will be as follows:

	A	B	C	D
Units	36,000	60,000	54,000	30,000
Selling price	K136	K180	K182	K188

The production manager states that the capacity of existing machines is 420,000 hours per annum, though this will be increased by 300,000 hours in two (2) years' time when new plant which is currently on order will be delivered. Meanwhile a local firm in Lusaka has offered to manufacture any of the products on a subcontract basis at the following prices:

A	K126
B	K160
C	K144
D	K164

The CEO of ZZ Ltd, Ms Nkumbu Makwaza, wishes to know which products to subcontract and which ones to make in house.

Required:

(a) Advise the CEO to what extent the services of the subcontractor should be utilized in order to meet the expected demand for Products A, B, C and D. (13 marks)

(b) Prepare a statement showing the profit that ZZ Ltd would expect if your advice is followed. (5 marks)

(c) State two (2) non-financial factors you should take into account before subcontracting Product C. (2 marks)

[Total: 20 Marks]

QUESTION THREE

Pembi Institute of Business and Technology (PIBT) is a tertiary institution based in the Southern Province of Zambia. As a government institution its overall objective is not of profit maximization but provision of tertiary education in business and technology courses. PIBT strives to provide value for money to the community by maximising the benefits for the lowest possible fee through the application of economy, effectiveness and efficiency. However, in pursuit of the goal of providing tertiary education PIBT does undertake profit-making activities. One such an activity is the provision of part time courses in the evening, under the Extension Studies Unit. PIBT offers two (2) part-time courses, namely Certificate in Business Administration (CBA), and Certificate in Automotive Mechanics (CAM). All courses are two years programmes and are examined by external examination bodies.

PIBT runs these programs on a semester basis for six (6) months. Of these six (6) months, the first and last months are used for registration and examinations of students, respectively, i.e. for first semester of the year, the months are January and June. The budget for the first semester for the year 2025 has the following details:

Revenue information			
Course Name	**CBA**	**CAM**	**Total**
Number of students:			
1 Year	20	30	50
2 Year	20	20	40
Total	40	50	
Number of courses per semester	4	4	
Fees payable :			
Application fee (1 Year only) (note 2)	K40	K30	

Registration fees per semester (note 3)	K100	K100
Tuition fees per semester (note 4)	K4,000	K3,600
Examination fees per course (note 5)	K400	K300
Expenditure information:		
Number of course hours per month	15	12
Lecturing allowance rate per hour	K300	K250

Notes:

1. In the first semester of the year, classes commence in February each year, while the second semester classes commence in August each year.

2. Application for courses closes in December and June prior to commencement of semester in February and August each year. Application fees are deposited directly into the bank account of respective examining bodies. The examining bodies then sends the list of successful applicants to the Institute.

3. Registration fees are payable in full one month prior to commencement of classes for the semester.

4. Tuition fees are payable 50% one month prior to commencement of classes for the semester, and the other 50% one month following commencement of classes for the semester.

5. Examination fees are payable in full by the students one month following commencement of classes for the semester.

6. Training materials are bought on credit from the suppliers at start of the semester and are estimated to total K160,000 per semester. Suppliers are paid 50% in February and 50% in April for the first semester.

7. The lecturers are paid lecturing allowance net of taxes by end of each month. The tax rate on the allowance is 37%.

8. PAYE deductible on the lecturing allowance is paid to the Zambia Revenue Authority by 10 of the following month.

9. Pembi Institute of Business and Technology remits the examination fees to the respective examination bodies, one month following closure of collection of the examination fees, less 25% handling charge.

10. Part of the examination handling charge is used to pay invigilators during the examinations in June and December each year. For the June 2025 examinations, invigilation allowance has been estimated to be K20,000 and the net after tax is payable in the same month of June. PAYE arising from the invigilator allowance is charged at 37% and payable by the 10th of the following month.

11. Pembi Institute of Business and Technology had a balance on 1 January 2025 at the bank of K6,000 in its Extension Studies Unit account.

Required:

(a) Explain the terms economy, effectiveness, and efficiency and give examples of how each can be measured in Pemba Institute of Business and Technology. (6 marks)

(b) Prepare for PIBT Extension Studies Unit, the cash flow budget for six (6) months from January to June 2025. Round off your answers to the nearest thousand kwacha. (14 marks)

[**Total: 20 Marks]**

QUESTION FOUR

Bahamas General Dealers Limited (BGD Ltd) manufactures and distributes a wide range of products. Of interest is one product manufactured and distributed by BGD Ltd known as 'sigma'. The Management Accountant of BGD Ltd has provided the following information relating to the product sigma.

Production capacity	60%	100%
Production and sales (in units)	720,000	1,200,000
	K'000	K'000
Sales	14,400	24,000
Production costs:		
Variable	5,760	9,600
Fixed	2,400	2,400
Sales and distribution overheads:		
Variable	2,880	4,800
Fixed	3,600	3,600

Additional information:

(i) The normal level of activity for the year is 1,200,000 units.

(ii) Fixed costs are incurred evenly throughout the year, and the actual fixed costs are the same as budgeted.

(iii) There was no opening inventory of product sigma at the beginning of the year.

(iv) 330,000 units of product sigma were produced in the fourth quarter of 2024 and only 240,000 units were sold.

(v) BGD Ltd expects to increase its production capacity during the next year.

Required:

(a) Calculate the fixed production costs absorbed of product sigma using absorption costing for the fourth quarter of 2024. (3 marks)

(b) Prepare the profit statement for BGD Ltd using absorption costing for the fourth quarter of 2024. (7 marks)

(c) Prepare the profit statement for BGD Ltd using marginal costing for the fourth quarter of 2024. (7 marks)

(d) Explain why there is a difference between the answers in (b) and (c) above and reconcile the two (2) profit figures. (3 marks)

[Total: 20 Marks]

QUESTION FIVE

The past ten (10) years have seen a revolution in management accounting theory and practice. The seeds of the revolution can be seen in publications in the early to mid 1980s that identified the failings and obsolescence of existing cost and performance measurement systems. Since that time researchers have reported remarkable innovations in management accounting; even more remarkable has been the speed with which the new concepts have become widely known, accepted and implemented in practice and integrated into a large number of educational programmes.

There is a variety of different groups or individuals whose interests are directly affected by the activities of an organisation. A modern management accountant should serve the needs of this group or individuals.

Required:

(a) Explain the role of management accounting in meeting the needs of six (6) different stakeholders. (9 marks)

One other role of management accounting is in meeting the needs of wider stakeholders, particularly in relation to sustainability.

(b) Explain how sustainability improves organisation efficiency and how it contributes to stakeholder support and market edge. (4 marks)

(c) Define and illustrate a cost object. (3 marks)

(d) Distinguish between job costing and processing costing. (4 marks)

[Total: 20 Marks]

END OF PAPER

CA 2.2 MANAGEMENT ACCOUNTING

SUGGESTED SOLUTIONS

<u>SOLUTION ONE</u>

(a) Budgeted overhead absorption rate per direct labour hour

$$OAR = \frac{\text{budgeted overheads}}{\text{budgeted direct labour hours}}$$

$$= \frac{K2,000,000}{(22,000,000/K440 \times 2 \text{ hrs/bag})}$$

$$= \frac{K2,000,000}{(50,000 \text{ bags} \times 2 \text{ hrs/bag})}$$

$$= \underline{K20/\text{direct labour hour}}$$

(b) **Distinction between overhead allocation and overhead absorption**

Overhead allocation is the process by which the whole cost items are charged directly to a cost unit or cost centre whereas overhead absorption is the process whereby the overhead costs allocated and apportioned to production cost centres are added to unit, job or batch costs

(c) **Difference in how absorption and marginal costing separate costs**

Absorption costing separates costs into production and non-production costs with the gross profit as the dividing line whereas marginal costing separates costs into variable and fixed costs using contribution as the dividing line.

(d) **Actual production cost per bag based on marginal costing**

	K
Direct materials (55 kg x K3/kg)	165
Direct labour (1.5 hours x K100/hour)	150
Variable overheads (1.5 hours x K40/hour)	60
Actual Production cost per bag	375

(e) **Actual Statement of profit or loss under marginal costing for the year ended 30 June 2025**

	K'000	**K'000**
Sales		24, 700
Cost of sales:		
Production costs [52,000 (w2) x K375/bag]	19, 500	

Closing inventory [14,000 (w2) x K375/bag]	(5, 250)	
		14, 250
Contribution		10, 450
Less Fixed costs:		
Production overheads (52 000 x K50/bag)		(2, 600)
Administration overheads		(2, 000)
Selling overheads		(2, 400)
Net profit		3, 450

Workings

(1) Actual production cost per bag under absorption costing

	K
Variable cost	375
Fixed cost	50
Actual cost	425

(2) Number of bags in inventory and production in the absorption costing statement

Production = K22,100,000/K425 per bag = 52,000 bags
Closing inventory = K5,950,000/ K425 per bag = 14,000 bags

(f) **Difference in the profits reported**

The difference in profit reported under the two costing systems for Highlanders Ltd is due to the difference in inventory valuation methods used.

Since the inventory levels increased between the beginning and the end of the period, absorption costing reported a higher profit figure than marginal costing because some of the fixed production overheads incurred during the period were carried forward in closing inventory to be set against sales revenue of the same inventory in the following period whereas, under marginal costing all the fixed production overheads incurred were written off in full against profit during the year.

(g) **Calculations of Direct Cost Variances for the year ended 30 June 2025**

		K'000
(i)	Material price variance	
	2,860,000 kg (52,000 bags x 55 Kg) should have cost (x K3.20/kg)	9, 152
	But did cost (2,860,000 kg x K3.00/kg)	8, 580
	Material price variance	572 **(F)**

(ii)	Material usage variance	
	52,000 bags should have used (52,000 x 50Kg/bag)	2,600,000 kg
	But used (52,000 x 55 Kg/bag)	2,860,000 kg
	Material usage variance in Kgs	260,000 kg
	x Standard cost per Kg	x K3.20
	Materials usage variance	K832,000 **(A)**

(iii) Labour rate variance

		K'000
	78,000 hours (52,000 x1.5 hours) should have cost (x K90/hour)	7 020
	But did cost (78,000 x K100/hour)	7 800
	Labour rate variance	780 **(A)**

(iv) Labour efficiency variance

52,000 bags should have taken (52,000 x 2 hours/bag)	104 000 hours
But took (52,000 x 1.5 hours/bag)	78 000 hours
Efficiency rate in hours	26 000 hours
x Standard labour cost per hour	x K90
Labour efficiency variance	K2,340,000 **(F)**

(v) Variable production overhead expenditure variance

	K'000
78 000 hours (52,000 x1.5 hours) should have cost (x K30/hour)	2 340
But did cost (78 000 x K40/hour)	3 120
Variable production overhead expenditure variance	780 **(A)**

(vi) Variable production overhead efficiency variance

52,000 bags should have taken (52,000 x 2 hours/bag)	104 000 hours
But took (52,000 x 1.5 hours/bag)	78 000 hours
Efficiency rate in hours	26 000 hours
x Standard variable production overhead cost per hour	x K30
Variable production overhead efficiency variance	K780,000 **(F)**

(h) **Deciding whether or not to investigate a variance**

The factors to consider by Management of Highlanders Ltd when deciding whether or not to investigate a variance are:

(i) Materiality – it is not worthwhile to investigate small variations in a single period by the management of Highlanders Ltd as obtaining the explanation for the variance will likely be time-consuming and irritating for the manager concerned.

(ii) Controllability - Controllability must also influence the decision whether to investigate a variance. There is nothing a manager can do to control a variance beyond his control and as such not worth investing. For example, if there is a general worldwide price increase in the price of an important raw material, there is nothing that can be done internally within Highlanders Ltd to control the effect of this. Uncontrollable variances call for a change in the plan, not an investigation into the past.

(iii) Variance trend – a variance in one period is worth investigating but if the same variance occurs over a period of time, the trend in absolute terms will depict that management of Highlanders is in control and possibly it's the standard that was wrongly set and hence not worth to investigate such a variance. However, if the trend continues despite changes to other factors, then it is worth investigating the variance.

(iv) Cost - The likely cost of an investigation needs to be weighed against the cost to Highlanders Ltd of allowing the variance to continue in future periods.

(v) Interrelationship of variances - Generally, individual variances should not be looked at in isolation by Highlanders Ltd. One variance might be interrelated with another, and much of it might have occurred only because the other, interrelated, variance occurred too.

SOLUTION TWO

Confirmation of limiting Factor

Product	Demand	Hrs/unit	Total hours
A	36,000	2	72,000
B	60,000	4	240,000
C	54,000	3	162,000
D	30,000	6	180,000
		Total hours required	654,000
		Total hours available	(420,000)
		Shortfall	234,000

Conclusion: machine hours are a limiting factor.

Contribution per limiting factor calculation

	A	B	C	D
	K	K	K	K
Selling price per unit	136	180	182	188
Variable cost per unit	(112)	(148)	(152)	(152)
Contribution per unit	24	32	30	36
Variable cost buying	126	148	144	164
Variable cost of making	112	148	152	152
Extra cost/(saving)	14	12	(8)	12
Decision	**Make**	**Make**	**Buy**	**Make**
Extra cost/(saving)	14	12	-	12
	÷	÷	-	÷
Limiting Factor(LF) Machine hours per unit	2hrs	4hrs		6hrs
Extra cost of buying/(saving) per LF	K7	K3	-	K2
Ranking(manufacturing order)	1st	2nd	-	3rd

W.1 : Variable cost per unit

A: K(72+16+24) = K112

B: K(76+24+48) = K148

C:	K(84+32+36)	=	K152
D:	K(48+32+72)	=	K152

Conclusion:

- Product C should be subcontracted because it is cheaper to buy than to make.
- This will reduce the shortfall in machine hours from 654,000 to 492, 000, i.e 654,000 less 162,000 hours released by subcontracting Product C.
- The resulting shortfall will be 234,000-162,000 = 72,000.
- Therefore, shortfall still exists because only 420,000 are available instead of 492,000 hours.

Optimum Allocation of 420,000 Hours

Ranking	Product	Output	Hrs/unit	Total Hours
1st	A	36,000	2	72,000
2nd	B	60,000	4	240,000
3rd	D	18,000	6	108,000
				420,000

Final Decision

MAKE

A – 36,000 Units
B – 60,000 Units
D – 18,000 Units

BUY

D – 12,000 at K164
C – 54,000 at K144

(b)

	A	B	D	D	E	
Selling Price	136	180	188	188	182	
Variable Cost	(112)	(148)	(152)	(164	(144)	
Contribution per unit	24	32	36	24	38	
• Sales units ('000)	36	60	18	12	54	
• Total contribution (K'000)	864	1,920	648	288	2,052	5,772
• Less: Fixed costs(K'000)						(2,000)
• Net Profit						**3,772**

(c) Two non-financial factors include:

(i) What will happen to the spare capacity left by Product C.
(ii) Will the bought-in product have the same quality as the internal one?

(iii) Will the subcontractor honor the agreed delivery period?
(iv) Redundancy costs
(v) Likelihood of the contractor increasing the prices in future.

SOLUTION THREE

(a) **Explanation of the terms economy, effectiveness and efficiency**

- **Economy** is attaining the appropriate quantity and quality of inputs at the lowest cost to achieve a certain level of outputs

Economy within PIBT could be to shop around for the cheapest supplier of PIBT requisites.

- **Effectiveness** is the extent to which declared objectives/goals are met

Effectiveness can be measured, for example, by considering the PIBT's objective of providing tertiary education in proportion to the number of students graduating from the respective programmes in Zambia.

- **Efficiency** is the relationship between inputs (resources) and outputs (results).

An example of how efficiency can be measured in PIBT could be considering how the automotive mechanics workshop uses its limited resources in the workshop to enable student succeed in their examinations(goals)

(b) **Pembi Institute of Business and Technology's Extension Studies Unit**
Cash flow Budget for Six months from January to June 2025

	Jan	Feb	March	April	May	June
	K'000	K'000	K'000	K'000	K'000	K'000
Receipts						
Registration fees (w1)	9	-	-	-	-	-
Tuition fees (w2)	170	-	170	-	-	
Examination fees (w3)	-	-	124	-	-	-
Total Receipts (a) -	179	0	294	0	0	0
Payments:						
Training materials			80		80	
Lecturing allowance			19	19	19	19
PAYE			11	11	11	11
Examination remittance					93	
Invigilation allowance						13
Total payments (b)	0	99	30	203	30	24
Opening Cash balance	6	185	86	350	147	117
Net cash flow [(a) – (b)]	179	(99)	264	(203)	(30)	(24)
Closing Cash balance	185	86	350	147	117	93

Working

	Jan	Feb	March	April	May	June
	K'000	K'000	K'000	K'000	K'000	K'000
1. Registration fees						
90 students x K100	9					
2. Tuition fees						
CBA (40 x K4,000) = 160 ,000						
CAM (50 x K3,600) = 180, 000						
340, 000						
50% x 340 000	170		170			
3. Examination fees						
CBA (40 x K400 x 4) = 64, 000						
CAM (50 x K300 x 4) = 60, 000						
124, 000			124			
4. Lecturing allowance per month						
CBA (4 x 15 x K300) = 18, 000						
CAM (4 x 12 x K250) = 12 000						
30, 000						
Ney pay per month (K30, 000 x 0.63) = 18, 900		19				
PAYE per month (K30, 000 x 0.37) = 11, 100		11				
5. Examination remittances (K124, 000x 75%) =				93		
6. Invigilation allowance						
Ney pay (K20, 000 x 0.63) = 12, 600						13
PAYE (20 000 x 0.37) = 7, 400 (to be paid in July)						

SOLUTION FOUR

(a) **Absorbed fixed production costs for fourth quarter of 2024:**

$$\frac{\text{Budgeted fixed product costs}}{\text{Budgeted output (Normal level of activity)}} = \frac{K2,400,000}{1,200,000} = \underline{\underline{K2 \text{ per unit}}}$$

Absorption rate = K2 per unit produced

Absorbed fixed overhead costs during quarter 4 = 330,000 units x K2/unit
= K660,000

(Wk. 1) The under/over recovery of overheads for the quarter would be:

	K
Actual fixed production overheads (1/4 x K2,400,000)	600,000
Absorbed fixed production overheads	660,000
Over absorption of overheads	60,000

(b) **Profit statements for BGD Ltd using Absorption Costing.**

	K'000	K'000
Sales (240 x K20)		4,800
Production costs:		
Variable (330 x K8)	2,640	
Fixed (absorbed overhead (330 x K2))	660	
Closing inventory (330 – 240) * K10 (K8+K2)	(900)	
		2,400
Gross profit		2,400
Adjustment for over-absorbed overheads(W.1)		60
Adjusted gross profit		2,460
Less: Sales and distribution overheads		
Variable (240 * K4)	960	
Fixed (1/4 *K 3,600)	900	
		(1,860)
Profit		600

(c) **Profit Statements for BGD Ltd Using Marginal Costing.**

	K'000	K'000
Sales (240 x K20)		4,800
Variable production costs	2,640	
Less closing inventory (330 – 240) * K8	(720)	
Variable production cost of sale		(1,920)
Variable sales and distribution costs (240 * K4)		(960)
Total contribution		1,920
Less:		
Fixed production costs incurred (K2,400/4)	600	
Fixed sales and distribution costs (K3,600/4)	900	
		(1,500)
Net profit		420

(d) The difference in profit is due to differences in valuation of closing inventory. In absorption costing the 90 units of closing inventory include absorbed fixed overheads of K180,000 (90,000 X K2), which are therefore costs carried over to the next quarter and not charged against the profit of the current quarter. In marginal costing, all fixed costs incurred in the period are charged against the profit.

	K'000
Absorption costing profit	600
Fixed production costs carried forward in inventory values	(180)
Marginal costing profit	420

SOLUTION FIVE

(a) Role of management accounting in meeting the needs of six different stakeholders.

Management accounting communicates economic information to people who have interest (stakeholders) in an organisation. The role of management accounting is to provide this information so that their goals or interests are met. The stakeholders will then be able to make informed decisions, evaluate risks, and ensure regulatory compliance.

Some of the stakeholders and their needs are:

(i) Management: managers may require information that will assist them in their decision–making and control activities, such information includes estimated selling prices, cost, demand, competitor position and the profitability of various products.

(ii) Shareholders: these require information on the value of their investment and the income that is derived from their shareholdings (dividends).

(iii) Employees: information on wage demands and avoiding redundancies is required. Most of them want continuity of employment.

(iv) Government agencies, e.g. the statistical office requires information on sales, profits, investment, stocks, dividends paid, taxation, etc.

(v) Creditors (trade payables and long term providers of finance: these require information on the firm's ability to m meet its financial obligations, i.e. they have the objective of being paid in the full amount by the due date.

(vi) Zambia Revenue Authority (ZRA): it requires information on the amount of profits that are subject to taxation.

(vii) Individuals and not for profit organisations (NFPO): accounting information is not confined to business organisations. Management accounting systems should provide information to individuals and this information is used by other individuals. For example, credit may only be extended to an individual after the prospective borrower has furnished a reasonable accounting of his/her private financial affairs.

(viii) NFPO'S such as churches, charitable organisations, clubs and government units such as local authorities also require information for decision making, and for reporting the results of their activities. E.g. a district council needs information on the cost of undertaking specific activities so that decisions can be made as to which activities will be undertaken and the resources that must be raised to finance them.

(

(b) How sustainability improves organisation efficiency and how it contributes to stakeholder support and market edge.

Sustainability involves strategies that involves developing strategies that balance environmental, economic and social needs. The eventual aim is that the organisation only uses resources at a rate that allows them to be replenished, and that emissions of waste are at a level the environment is able to absorb.

Sustainability improves organisation efficiency by reducing waste, using less energy and recycling.

Sustainable practices that might gain stakeholder support include reducing greenhouse gas emissions, encouraging employee flexible working (reduce commuting), reduced business travel, utilize technology, e.g. web conferencing, and sourcing from green suppliers.

(c) Definition and Illustration of Cost Object

A cost object is any activity for which a separate measurement of cost is required. In other words managers often want to know the cost of something and the 'thing' that they want to know the cost of is a cost object.

Examples of cost objects include the cost of a new product, the cost of operating a sales outlet and the cost of operating a specific machine.

(d) Distinction between job costing and processing costing

A job costing system relates to a costing system where each unit or batch of output of products(s) or services(s) is unique. This creates the need for the cost of each unit or batch to be calculated separately.

In contrast, a process costing system relates to situations where masses of identical units or batches of outputs are produced thus making it unnecessary to assign costs to individual units or batches of output. Instead the average cost per unit or batch of output is calculated by dividing the total costs assigned to a product or service for the period by the number of batches of output for that period.

END OF SUGGESTED SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA APPLICATION ADVANCED DIPLOMA IN ACCOUNTANCY

CA 2.3 AUDITING PRINCIPLES AND PRACTICE

THURSDAY 11 DECEMBER 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

You and your friend Jack recently obtained a practicing certificate from the Zambia Institute of Chartered Accountants (ZICA) and formed an audit firm Chris & Jack Chartered Accountants. Both of you previously worked for large audit firms and rose to the positions of Partner.

Your firm recently recruited and employed one (1) Audit Manager who is a ZICA member, two (2) recently qualified Audit Seniors and three (3) Audit Assistants still studying for the ZICA qualification.

Your firm acquired its first audit client Mubuyu Ltd, a company in the manufacturing industry involved in the manufacturing of agricultural and industrial chemicals. The company has an accounts department comprising five (5) staff under the supervision of the Chief Accountant who is a ZICA member. The other members of staff are ZICA registered students still studying for the ZICA qualification. The company has an Internal Auditor whose role is to conduct tests of the internal controls and to help design suitable internal controls to protect the assets of the company. This will be the first time that Mubuyu Ltd will undergo an external audit and management has expressed anxiety on the benefits of an external audit.

The audit of the financial statements of Mubuyu Ltd for the year ended 31 March 2025 has been assigned to one (1) of the Audit Seniors. You are the Engagement Partner on this audit and the rest of the audit team comprises the Audit Manager and two (2) Audit Assistants.

You recently held a meeting with the Chief Executive Officer (CEO) of Mubuyu Ltd to discuss the objective of the statutory audit and the approach that you intend to take in conducting the audit. It was very clear from the discussion that you had with the CEO that the expectation of the company is that the result of the audit will give an absolute assurance on the financial statements. When you indicated that the audit will result in a reasonable assurance on whether the financial statements show a true and fair view the management team did not understand what this meant. Further, the Chief Executive Officer indicated that the company wishes to set up a Board of Directors and would like to comply with whatever guidance is in place with regards corporate governance. The country follows a rule based approach to corporate governance for all listed companies and companies whose turnover exceeds a given threshold. Mubuyu Ltd exceeds the threshold and is subject to the guidance given in statute regarding best practices on Corporate Governance.

You called for a meeting with the audit team members on the audit of the financial statements of Mubuyu Ltd at which you explained the importance of adhering to ethics in conducting the audit and on the need to report any ethical dilemmas they may encounter.

You would like to follow a combined approach to the audit so that if the results of the tests of controls show that the internal controls in Mubuyu Ltd are operating as expected this will limit the extent of the nature and extent of further procedures to be performed. To enable the audit team conduct tests of controls, there will be need to record the accounting and control systems at the planning stage of the audit.

The following additional information relates to Mubuyu Ltd:

(1) There was a legal case against the company by the Environmental Council of Zambia that sued Mubuyu Ltd for discharging hazardous substances in the main drain. A provision of K1.2 million was recognized in the financial statements. The case was concluded on 15 April 2025 and a fine of K2.3 million was imposed on the company by the regulators.

(2) Inventory valued at K1.5 million at cost at the period end was sold for K0.8 million after the period end. No adjustment was made to the financial statements concerning this sale.

(3) A fire destroyed parts of plant and equipment on 16 April 2025 completely destroying the equipment. Management wrote off the equipment in the financial statements.

The audit work in the audit of the financial statements of Mubuyu Ltd is almost complete. The Audit Manager has observed that no work has been done with regards subsequent events. In his review points, he has indicated that the audit team will require to perform audit procedures on subsequent events in accordance with the provisions of ISA 560 *Subsequent events.*

The planned closing events of the audit are as follows:

Date the audit report will be signed	10 May 2025
Date of issue of the financial statements	15 May 2025
Date of the Annual General Meeting with members	26 May 2025

Required:

(a) Explain two (2) reasons auditors cannot issue an absolute assurance after an audit of financial statements. (2 marks)

(b) (i) Explain the importance of professional ethics to ZICA members. (2 marks)

(ii) State two (2) categories of the people that are subject to the ZICA and IFAC ethical principles for accountants in the scenario. (4 marks)

(iii) Explain two (2) advantages of a principle based approach to Corporate Governance and two (2) disadvantages of a rule based approach to Corporate Governance. (4 marks)

(c) Explain four (4) methods that the audit team could use to record the accounting and internal control systems of Mubuyu Ltd and for each method give one (1) disadvantage. (8 marks)

(d) (i) Explain two (2) steps that you will take before seeking direct assistance of internal audit in the audit of the financial statements of Mubuyu Ltd. (2 marks)

(ii) Describe two (2) areas where the audit team may not seek direct assistance of Internal Audit in the audit of the financial statements of Mubuyu Ltd. (4 marks)

(e) (i) Explain the reason external auditors require to perform audit procedures on subsequent events. (2 marks)

(ii) Explain the responsibilities of the external auditors of Mubuyu Ltd from the end of the accounting period to the date the financial statements are issued. (6 marks)

(iii) Explain the three (3) subsequent events in the audit of the financial statements of Mubuyu Ltd, explaining the action that should be taken by the audit team. (6 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt any THREE (3) questions.

<u>QUESTION TWO</u>

(a) Giraffe Plc recently obtained a listing on the Securities Exchange. The company has an internal audit department which up to now repots to the Director of Finance. The management of Giraffe Plc comprises the Chief Executive Officer as the head with Directors heading finance, production, administration and human resources. A Board of Directors comprising a mixture of executive and non-executive directors is in place.

The finance function prepares quarterly financial statements which are reviewed by the Board of Directors. The annual financial statements are also subject to board approval. The Board of Directors has proposed the establishment of an Audit Committee and appointment of external auditors. You are the Chief Internal Auditor at Giraffe Plc and you have been requested to write a Board paper on the role of the proposed Audit Committee.

Required:

Describe three (3) roles that the proposed Audit Committee will play in running the affairs of Giraffe Plc. (6 marks)

(b) You are the Audit Supervisor at Chanda and Associates (Chanda), a firm of Chartered Accountants. Your firm has been appointed as auditors of Mweru Ltd. The financial year end of Mweru Ltd is 31 December 2024 and the audit is nearing completion.

In order to meet the tight audit timetable, the Audit Senior decided to rely solely on analytical procedures and written representations from management to obtain the necessary audit evidence needed to form an opinion. Management provided representations requested in writing. The results of the analytical procedures suggested that cost of sales for the year was understated by K3.5 million. Management refused to correct this misstatement and the Audit Senior recommended that a modified opinion should be issued.

The Chairman of the Audit Committee was not pleased with the Audit Senior's recommendation and indicated that should a modified opinion be issued for the current year audit, then the contract for non-audit services will be terminated and that the contract for the offer of audit services will not be renewed when it expires next year.

Chanda provides taxation services to Mweru Ltd and this involves the preparation and submission of the annual tax returns. The fees from taxation services are significant. These tax services and audit services contribute 20% of your firm's total income. Mweru Ltd is also being investigated by the Zambia Revenue Authority (ZRA) for tax related offences. Your firm's tax department has been requested to represent Mweru Ltd before the ZRA tax tribunal.

Required:

(i) Assess the sufficiency and appropriateness of the audit evidence obtained by the Audit Senior as a basis for the audit opinion. (6 marks)

(ii) Using the information provided, describe four (4) ethical matters that may affect the objectivity and independence of auditors of Mweru Ltd. (8 marks)

[Total: 20 Marks]

QUESTION THREE

Zambezi Ltd (Zambezi) is a privately owned company with the majority of the shareholders being the founders of the company. In the public interest, the company has had its financial statements audited by your firm, Kafue and Associate (Kafue), despite the fact that the company revenue falls below the required threshold for mandatory external audits. The company has seen an increase of 40% in the audit fee over the period of four (4) years, so the shareholders are concerned that despite revenue and profitability remaining the same over this period the audit fee has been increasing and therefore impacting on the profitability of the company.

Zambezi has approached Kafue requesting for a review of financial statements, as an alternative to an external audit. The Engagement Partner has requested you to prepare him notes suggesting that a review of the financial statements may be conducted instead of an audit. In the notes you should describe the level of assurance that will result from a review of the financial statements.

The Engagement Partner has also requested you to identify areas where the audit team will require to exercise professional skepticism during the audit. In the current year, the Board of Directors approved a performance based pay scheme for management on meeting set profitability levels. As a result, there are strict cost controls that have been put in place by management to manage costs within existing revenue levels.

Warranty provision of K500,000 and provision for legal case of K1,100,000 were reported in the financial statements of Zambezi Ltd for the year ended 31 March 2025. Management prepared the financial statements on the going concern basis. Management conducted an assessment and concluded that the company was a going concern. A Cash flow statement was prepared to support the conclusion and written representations on going concern were given to the audit team.

You are aware that the procedures that are performed to obtain evidence during the review engagement are mainly inquires and analytical procedures. However, written or oral representations from management may be obtained to support other evidence.

Required:

(a) Compare the level of assurance that will be given after a review of the financial statements of Zambezi Ltd to that of an audit of the financial statements. (4 marks)

(b) (i) Explain the meaning of public interest and professional skepticism.

(4 marks)

(ii) Describe four (4) areas where professional skepticism should be applied during the audit of the financial statements of Zambezi Ltd. (8 marks)

(c) Describe two (2) substantive procedures which are to be performed on each of the following:

(i) Warranty provision. (2 marks)

(ii) Legal case. (2 marks)

[Total: 20 Marks]

QUESTION FOUR

(a) Mukwa Trading Ltd is a manufacturing company involved in the manufacturing of a wide range of products. Raw materials and finished goods are kept in a large warehouse at Head Office. The warehouse is managed by the Warehouse Manager.

Raw materials are drawn from stores for use in manufacturing and finished goods are stored in stores awaiting sales to customers. The majority of product lines manufactured have limited shelf life and in line with regulations, the company indicates the date of manufacture and the expiry dates on the products. There are instances where customers buy good and pay for them but do not collect them until a later date. There are stock items that get damaged in the process of receiving and dispatching them. Production will continue on the day that the inventory count will take place. The company will conduct inventory count on the last day of the financial year. As an External Auditor, you have been requested to suggest the inventory count instructions.

Required:

(i) Explain the responsibilities of management and the audit team for the inventory count instructions. (2 marks)

(ii) Suggest six (6) inventory count instructions that should be followed in the conduct of the year-end inventory count of Mukwa Trading Ltd. (6 marks)

(c) You are an Audit Manager in your firm of Chartered Accountants and are reviewing the extracts from the working papers of the three (3) audit clients:

Kazungula Mining Co:
Kazungula acquired a large piece of equipment during the year and incurred K15 million in transporting and bringing the equipment to its present location. Management

capitalized the amount and included it in the Property, Plant and Equipment. The Audit Senior is of the view that the amount should be charged to profit or loss. The Audit Assistant supports the capitalization of this cost and this matter has not been resolved.

Zimba Ltd:
In the subsequent period, but before the signing of the audit report a fire gutted inventory worth K1.5 million destroying the inventory completely. The total assets of Zimba Ltd amount to K20.0 million and the total profit after tax amounts to K11.0 million. The audit team obtained sufficient appropriate audit evidence and apart from the inventory destroyed in a fire, the audit team had no other matters of concern. Management has adequately disclosed this event in the financial statements.

Kalomo Ltd:
The year-end of Kalomo Ltd is 31 December. As auditors, you issued an unmodified opinion for the financial year just ended and the financial statements were issued. However, before the annual general meeting, management of Kalomo Ltd informed your Engagement Partner of an adjusting event that was not accounted for in the financial statements issued.

Required:

(i) Explain how the matter of disagreement within the audit team in the audit of Kazungula Mining Co. should be resolved. (4 marks)

(ii) Using the information provided for Zambia Ltd, assess the materiality and pervasiveness of the matter (inventory) and its effect on the audit opinion. (4 marks)

(iii) Explain the auditors' responsibilities regarding the matter discovered after the issue of the financial statements of Kalomo Ltd. (4 marks)

[Total: 20 Marks]

QUESTION FIVE

You are an Audit Manager of Mwango & Associates (Mwango), and your audit firm has just been appointed by Timber Co. (Timber) as auditors. You have been asked by the Engagement Partner to gain an understanding of this entity and its environment *as required* by ISA 315. ISA 315 (revised) *identifying and assessing the risks of material mistreatment through understanding the entity and its environment.*

Timber Co. is a PACRA registered Company, managed and run by its Executive Management of five (5) directors and its a member of the Zambian Products Association (ZPA). The Company subscribes to the ZPA quarterly magazine. Timber Co. has a website which contains a lot of information relevant to its competitors, potential customers and suppliers.

The following matters have been brought to your attention:

(1) Timber's total assets are K432 million and profit before tax is K72 million.

(2) Timber has one (1) centralised buying department and all purchase requisition forms for raw materials must be forwarded there. Upon receipt the buying team will research the

lowest price from suppliers and a purchase order is raised. The purchase order is approved and authorized by the Purchasing Director and the Chief Executive Officer respectively.

(3) Timber revalues its land and buildings every three (3) years. During the year, Timber engaged an external independent valuer to revalue land and buildings. These were acquired many years ago and buildings are depreciated on a straight-line basis.

(4) The year-end trade receivables balance is K39 million (last year: K28 Million) and the allowance for trade receivables is K1 million (last year: K3 million). A receivables age analysis has been provided. It shows a significant amount over 60 days and there are receivables with credit balances. There is a receivables ledger control account that is reconciled monthly to the total of individual receivables balance.

(5) You will lead the audit team that will audit the trade payables. However, you are skeptical about the completeness and accuracy of the trade payables and to efficiently and effectively audit this risky area, the audit team will utilize audit software when auditing the trade payables.

(6) Your Audit Junior is not aware of the auditors' statutory duties and rights and needs your help before the commencement of the audit.

Required:

(a) Explain five (5) methods that the audit team can use to gain an understanding of Timber Co. at the planning stage of the audit; and explain the importance of the information obtained. (5 marks)

(b) (i) Describe three (3) substantive procedures the auditor should perform In relation to the audit of revaluation of land and buildings. (4 marks)

(ii) Describe four (4) substantive audit procedures in relation to the audit of trade accounts receivable. (3 marks)

(c) Describe four (4) audit procedures that could be carried out using audit software in the audit of trade payables. (4 marks)

(d) Explain four (4) rights of an auditor. (4 marks)

[Total 20 Marks]

END OF PAPER

CA 2.3: AUDITING PRINCIPLES AND PRACTICE

SUGGESTED SOLUTIONS

SOLUTION ONE

(a) **Reasons auditors cannot issue an absolute assurance:**

(1) The financial statements contain estimates which involve judgement in determining.
(2) The auditors do not test all the transactions and balances and the financial statements may contain undetected misstatements.
(3) The audit process is not objective and there is judgement involved in areas such as deciding on the audit work to be done, assessing risk and responding to it and in forming the audit opinion.
(4) The accounting and control systems have limitations and there can be errors in the financial statements that may not be detected by the auditors which could misstate the financial statements.

(b) **(i) The importance of professional ethical principles for accountants:**
Ethical principles for accountants help the accountant to conduct themselves in a manner that is in the public interest in all their professional dealings. If auditors observe the ethical principles, it means that they will remain objective in the conduct of the audits.

(ii) People subject to the ethical principles:

(1) The accounting staff of Mubuyu Ltd that are members of ZICA including the Chief Accountant.
(2) The other students that are student members of the ZICA are subject to the ethical principles for accountants.
(3) The members of the assurance team are all subject to the ethical principles.

(iii) Advantages of principles based approach to corporate governance:
(1) The codes can be applicable to many jurisdictions.
(2) The principles can be applied to many different situations that may arise rather than take a narrow view as is the case with rules.

Disadvantages of the rule based approach to corporate governance:

(1) The rules are applicable only in the jurisdiction in which they are passed.
(2) The rules cannot be applied to different situations and are applied narrowly and subject to interpretation, they are rigid.

(c) **Methods of recording the accounting & internal control systems of Mubuyu Ltd:**

(1) **Narrative notes** – This is where the audit team inquiries from management details of the accounting and internal control systems and records in narrative notes.

Disadvantage:

- When there are changes to the system narrative notes are difficult to change and may require rewriting.

(2) **Flowcharts** – This is a graphic illustration of the actual flow of information in the accounting system. Flow lines represents the sequence of processes and other symbols represent the inputs and outputs of the system.

Disadvantage:

- Any changes to the system may require redrawing the flowchart.
- Mostly used for routine standard system and not those that deal with unusual transactions.

(3) **Questionnaires** – This includes Internal Control Questionnaires and Internal Control Evaluation Questionnaires. These are sets of question designed by the auditor to confirm whether desired controls exist or that specific areas could occur in the system.

Disadvantage:

- If drafted vaguely they may be misunderstood.
- They may not include unusual controls.

(4) **Checklists** – These include sets of statements about the system and requiring the client staff to mark off and tick boxes that are used to indicate where the statement is true.

Disadvantage:

- Statements may be drafted vaguely and not what was intended.
- Mostly used for routine systems rather than unusual controls.

(d) **(i) Steps to take before seeking direct assistance of internal audit**:

(1) The Audit Manager should obtain written authorization from the company. The authorization should come from a person with the necessary authority confirming that the internal auditors will the instructions of the external auditors.
(2) Written confirmation from the internal auditors that they will comply with the ethical principle of confidentiality and bring to the attention of the external auditors any threats to their objectivity.

(ii) Areas audit team will not seek direct assistance of internal audit:

(1) The internal auditors may not be used to evaluate the effectiveness of the internal audit department of Mubuyu Ltd.

(2) The internal auditors will not be required to perform audit procedures in areas where judgment is required including the audit of accounting estimates. In the scenario, the internal auditors will not be assigned to conduct audit procedures on the estimate of the outcome of the legal case against the company.

(e) **(i) Why auditors perform procedures on subsequent events:**

There are events that give evidence of conditions that existed at the period end affecting some of the figures that were subject to audit. This is particularly the case with accounting estimates some of which are confirmed subsequent to the year end.

Not dealing correctly with the subsequent events that may exist will result in the financial statements being misstated. The auditors will be concerned on whether management has correctly accounted for such events in accordance with the provision of IAS 10 *Events after the reporting period*.

(ii) Responsibilities of auditors between year-end and approval of financial statements:

Period end to date of signing report:

The auditors have an active duty between the period end and the date of signing the audit report to conduct procedures to identify any subsequent events during this period.

If there are any subsequent events identified, the auditors will inquire from management on how they have been accounted for and confirm that this is in line with the provisions of the accounting standard. If management has not accounted for such events the auditors will request management to amend the financial statements as necessary.

Date of signing report and date of issue of the financial statements:

The auditors have a passive duty after the date of signing the audit report. Management should bring to the attention of the auditors any matters that arise during this period which will have an impact on the determination of an appropriate opinion had they been known.

If a matter comes to the attention of the auditors during this period, they will discuss with management on how it wishes to deal with the matter. If it requires amendment to the financial statements to be made, they will be made by management and the auditors will perform audit procedures on the amendments. A new audit report will be issued and the auditors will extend the active duty period to the date of the new audit report.

(iii) Subsequent events in the audit of the financial statements of Mubuyu Ltd:

	Subsequent event explanation	Action to take
1	The legal case against Mubuyu Ltd was provided for at the period end. The case was determined and concluded after the period end and the amount determined by the court gives evidence of the amount that should have been provided for at the year end. This is an adjusting event.	Request management of Mubuyu Ltd to adjust the provision elated to the case and increase it by K1.1 million. If the accounts are adjusted, there will be need to perform audit procedures on the adjustments.
2	The sale of the inventory after the period end for K0.800 gives evidence of the net realizable value of the inventory in question. Had this been known, this would have been the amount used to compare with the cost in order to value inventory at the lower of the two. Clearly the inventory should have been valued at K0.800 which is lower than the cost of K1.5 million. This is an adjusting event requiring the inventory value at the period end to be adjusted.	Request management of Mubuyu Ltd to adjust the financial statements and adjust the value of inventory. The audit team will then require to perform audit procedures on the adjustments.
3	The fire that destroyed the equipment took place after the period end. The equipment existed at the period end. This is a non-adjusting event that does not require the figures in the financial statements to be amended. Management may wish to disclose this in the notes to the financial statements.	There is need to request management to restate the figure of plant, property & equipment and restate the amount that was wrongly written off. Once this is done, audit procedures will be performed on the adjustments.

SOLUTION TWO

(a) **Roles of the proposed Audit Committee in running of Giraffe Plc:**

(1) The internal audit department which currently reports to the Director of Finance can now be reporting to the Audit Committee. In this way, the department will be independent and be more objective in the performance of work with no fear of possible intimidation by the Director of Finance or others.
(2) The committee will be a forum to which the Director of Finance may refer issues of disagreement with the Chief Executive Officer. The committee can help resolve any such matters.
(3) In view of the fact that the company will engage external auditors, the Audit Committee will be a forum to which the external auditors can exert their independence and refer any matters of concern to this committee.
(4) The committee will improve the quality of the quarterly and annual financial statements because they will be reviewed by the committee before being referred to the main Board of Directors.

(b) **(i) Sufficiency and appropriateness of audit evidence**:

1. Sufficiency of the audit evidence in the audit of Mweru Ltd

Auditors are required to obtain sufficient evidence on the figures contained in the financial statements to be able to issue an appropriate opinion. This is achieved by performing substantive audit procedures on all material amounts contained in the financial statements.

Analytical procedures can be used as substantive audit procedures but they require to be supported by other evidence. For example the conclusion reached based on the analytical procedures that cost of sales is understated should be supported by substantive procedures on the elements that go towards calculating cost of sales namely opening stock, purchases and closing stock.

Written representations are part of evidence that is obtained by auditors.

On their own they cannot be considered sufficient they usually support other audit evidence obtained.

Conclusion:

The evidence obtained in the audit of the financial statements of Mweru Ltd is not sufficient to be a basis for the suggested modified opinion.

2. **Appropriateness of the audit evidence in the audit of Mweru Ltd:**

Analytical procedures are used in obtaining evidence in many areas of the financial statements. The use of results of the analytical procedures is usually to enable the audit team to identify areas where more substantive audit procedures should be conducted. Simply performing analytical procedures will not provide the necessary and appropriate evidence for all the assertions in the financial statements.

Written representations cannot be used as a sole source of evidence. They are used to support other evidence obtained by the audit team. In the conduct of an audit as is the case for the financial statements of Mweru Ltd these two methods cannot be deemed as appropriate.

Further, substantive audit procedures should have been conducted for all material amounts and these procedures will be different for different amounts.

Conclusion:
The analytical and written representations obtained are not appropriate as sole methods of obtaining evidence in this situation.

(ii) Ethical matters in the audit of the financial statements of Mweru Ltd:

(1) The offer of tax services to an assurance client such as Mweru Ltd is an ethical matter that could give rise to a self-interest that could result in the lack of objectivity by the auditors.
The preparation of tax returns on behalf of the client does not generally result in a threat to the objectivity of a client particularly where the client acknowledges its responsibility for the tax returns as is the case with Mweru Ltd.

(2) The comment buy the Chairman of the Audit Committee that the firm risks losing the engagement to offer non-audit services and that the assurance engagement contract will not be renewed is an intimidation threat. This could affect the objectivity of the audit team members and suitable safeguards will require to be applied.

(3) The request by Mweru Ltd that the firm represents Mweru Ltd at the hearing by the Tax Tribunal is an advocacy threat that will affect the objectivity of the auditors.

(4) The fact that the total fee income from Mweru Ltd is significant and exceeds 15% of the total fee is an ethical issue that gives rise to dependency on one client and will impact the objectivity of the firm and audit team members. Suitable safeguard require to be applied to remove the overdependence.

SOLUTION THREE

(a) Levels of assurance:

(1) Review engagement:
In a review engagement the level of assurance that will be given is a limited assurance.
This is a lower level of assurance compared with a reasonable assurance that is given in an audit of the financial statements.

The conclusion arising from a review engagement is given in a negative form with the auditors stating that nothing has come to their attention that the financial statements do not show a true and fair view.

(2) Audit engagement:
The level of assurance arising from an audit of financial statements is a reasonable assurance which is a high but not absolute level of assurance.
This is because a high level of testing is done compared to a review and it is given in a positive form with the auditor expressly stating whether or not the financial statements show a true and fair view.

(b) (i) Meaning of public interest & professional skepticism:

(1) **Public interest:**
Public interest means acting for the welfare of society at large including in the interest of different stakeholders including clients, lenders, government, employers, employees the community and all others who may place reliance on the financial statements audited by the external auditors.

(2) **Professional skepticism:**
This is a state of mind of the auditor which requires the auditor to remain alert during the audit and also have an inquiring mind and look out for the possibility of error or misrepresentations. The auditor should be prepared to challenge management without being unduly suspicious.

(ii) Areas where professional skepticism should be observed in the audit of the financial statements of Zambezi Ltd:

(1) The audit team should be skeptical about the determination of accounting estimates contained in the financial statements for possible bias by management.

(2) The auditors should be skeptical about fraud in particular fraudulent financial reporting by management aimed at meeting the set targets required for the payment of the performance pay.
(3) The auditors should be skeptical about the reliability of the written representations given by management.
(4) The audit team members should be skeptical about the oral evidence received from inquires of management and others in the organization. This could be in the process of gaining an understanding and risk assessment at the planning stage of the audit.

(c) Substantive audit procedures:

(i) Warranty Provision

(1) Obtain details of the make of the warranty provision of K500 000 and evaluate the assumptions made.
(2) Review the previous year warranty provisions and compare with the actual expenditure for warranty in the current year to assess management's ability to make provisions.
(3) Review the post year expenditure on warranty before the signing of the audit report and make adjustments to the provision if necessary.
(4) Obtain written representations from management confirming the adequacy of the provision made at the period end.

(ii) Provision for legal case:

(1) Obtain details of the make-up of the provision for legal case from management and review the assumptions made in arriving at the provision.
(2) Obtain written representations from management acknowledging that the provision made is appropriate under the circumstances.
(3) Discuss the legal matter with the in-house legal advisor if any and obtain their views on the provision made.
(4) After the period end inquire from management the status of the matter and consider amending the provision if new information is available.
(5) In the event that the case is determined by the court before the signing of the audit report consider it as an adjusting event and confirm the accounting for this by management.

SOLUTION FOUR

(a) **(i) Responsibilities of management and the auditors regarding inventory count:**

Management of Mukwa Trading Ltd is responsible for running the company including inventory management. Management is responsible for the issuing of inventory count instructions that will be followed in the conduct of the inventory count.

The responsibility of the auditors regarding inventory count instructions is to review the inventory count instructions issued by management and assess them if they are adequate to form the basis of the inventory count. The auditors will bring to the attention of management any weaknesses in the inventory count instructions.

(ii) Inventory instructions for inventory count of Mukwa Trading Ltd:

(1) Inventory count teams should comprise two (2) people with one (1) counting and the other recording the counts.
(2) There should be no movement of inventory in and out of stores during the inventory count.
(3) All inventory count records should be updated as at the date of the inventory count.
(4) All inventory held for third parties including goods paid for but not collected should be identified and not included in the inventory count.
(5) Damaged inventory should be identified and isolated.
(6) Expired inventory should be identified and counted separately so that such inventory will be appropriately valued at the lower of cost and net realizable value as required by IAS 2 *Inventories*.

(b) **(i) How disagreement with management will be dealt with:**

The audit team should agree on the accounting treatment of the equipment acquired and the related cost. In the event that there is no agreement within the audit team, the matter should be brought to the attention of the senior people within the firm. In view of the fact that the disagreement involves the Audit Senior, the matter should be referred to the Audit Manager who should be in position to help resolve the disagreement.

If the firm has a policy on resolving misunderstanding within the audit team, that procedure should be followed. ISQC 1 requires firms to have policies in place for conflict resolutions in which case the policy should be followed.

Once the matter has been agreed within the audit team, there is need to ensure that the amounts are correctly accounted for by management and request amendments to the financial statements if necessary. If management does not amend the financial statements, the auditors will consider the impact of the refusal to amend the financial statements will have on the audit opinion.

(ii) Suggested audit opinion for the audit of the financial statements of Zimba Ltd:

The fire that gutted inventory worth K1.5 million happened in the subsequent year and the gutted inventory existed at the period end. This is a non-adjusting event which will not require the financial statements to be amended and has no impact on the opinion to be issued.

The fact that the value of the inventory may be material to the financial statements of Zimba Ltd is not matter and will not impact the opinion. If the amount is considered material, the auditors may wish to include this fact in the audit report by explaining the destruction of inventory in the emphasis of matter paragraph of the audit report.

Suggested opinion:

In view of the fact that the audit team obtained sufficient appropriate audit evidence and the arguments regarding the gutted inventory, the appropriate opinion is an unmodified opinion.

signing the report.

(iii) Audit response regarding subsequent event:

The event that was brought to the attention of the auditors after the audit report had been signed and the financial statements issued is a subsequent event. Ordinarily, the auditors do not have any responsibilities after the signing of the audit report.

Management has brought a matter to the auditors that would have made the auditors modify the report.

In view of this matter the auditors will do the following:

(1) Discuss the matter with management and in view of the materiality of the matter request management to amend the financial statements.
(2) Request management to take steps to ensure that users of financial statements should not place reliance on the financial statements issued. This may require that the financial statements be withdrawn which may be by away of an advertisement in a national newspaper.

(3) The auditors will require to perform audit procedures on the amendments to the financial statements and extend the period of identifying subsequent events to the date of the new audit report that will be issued.
(4) A new audit report will have to be issued after the audit procedures on the amendments and the findings arising.

SOLUTION FIVE

(a) Understanding an entity and its environment:

(1) Inquiries of management and others in the company: management One of the main methods of gaining an understanding that could be used is inquires of management and staff of the entity. This was the auditors will gain an insight of the operations of Timber Co.

(2) Observations of the activities that take place in the process of gaining an understanding. The auditors will gain knowledge of the operations through the observations.
(3) Browsing through the website which contains a great deal of information on the operations of Timber Co.
(4) Obtaining and going through available industry information such as is contained in the quarterly magazine. The auditors will be able to compare the performance of the company with the industry averages.
(5) Knowledge gained by the firm through auditing a company in the same industry as Timber Co.
(6) Analytical procedures of any financial and non-financial data that may be available and making comparisons with prior years and industry averages.

(b) (i) Substantive procedures for land & buildings revaluation

(1) Recalculate the total revaluation adjustment (surplus/ (loss) and agree correctly recorded in the revaluation reserve account.
(2) Recalculate the depreciation charge for the year to ensure that depreciation was based on the correct valuation.
(3) Cast the schedule of land and buildings revalued this year and cast to confirm completeness and accuracy of the revaluation adjustment.
(4) For a sample of revalued land and building, agree the revalued amounts to the valuation statement/report provided by the valuer to verify accuracy.
(5) Agree the revalued amounts for these assets to the amounts recorded in the non-current assets register/P.P.E general ledger account to verify accuracy.
(6) Review the financial statements disclosures of the revaluation to ensure they comply with IAS 16 Property, Plant and Equipment (P.P.E).

(ii) Substantive procedures for trade receivables per valid substantive procedure)

(1) Agree the aged receivables listing to the sales ledger control account balance and trial balance.

(2) Review the aged trade receivables listing or ledger to identify any slow moving or old balances and discuss with management the possibility of writing these off.
(3) For a sample of trade receivables, review for any after-date cash receipts and trace these in the cash books and ban statements.
(4) Calculate the average receivables collection period/days and compare this to the prior year and investigate any significant differences.
(5) Review customer correspondence to identify any balances which are disputed or unlikely to be paid and discuss with management the possibilities of write offs.
(6) Review board minutes to identify whether there are any significant concerns in relation to payments by customers.
(7) Inspect post year-end sales returns/credit notes and consider whether an additional allowance for receivables is required.
(8) For trade receivables with credit balances, discuss with management the possibilities of re-classifying these as trade payables.
(9) Discuss with management the basis of reducing the allowance for receivables from K3 million to K1 million to assess if the basis is reasonable.
(10) Recalculate the allowance for receivables and compare to any potentially irrecoverable balances to assess if the allowance is adequate.
(11) For a sample of goods despatched notes (GDN) immediately before and after the year end, trace them in the ledger accounts to verify that cut off is correct.

(c) CAATS - audit procedures on trade payables using audit software

(1) Calculate payables days for the year-to-date to compare against the prior year. If payables days have decreased, this may indicate that payables are understated.
(2) Recalculate the trade payables balance at the year-end to verify accuracy.
(3) Cast the payables listings to confirm the completeness and accuracy of trade payables.
(4) Select a representative sample of items for further testing of payables balances.
(5) Verify cut-off testing by assessing whether the dates of the last GRNs recorded relate to pre year end.
(6) Extract or produce the payables with negative balances and discuss with management for possible re-classification.

(d) Auditors' rights

(1) Right of access at all times to the company's books, accounts and vouchers.
(2) Right to require from an officer of the company such information or explanations as they think necessary for the performance of their duties as auditors.
(3) Right to receive all communications relating to written resolutions.
(4) Right to receive all notices of, and other communications relating to, any general meeting which a member of the company is entitled to receive.
(5) Right to attend any general meeting of the company.
(6) Right to be heard at any general meeting which an auditor attends on any part of the business of the meeting which concerns them as auditor.

END OF SUGGESTED SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA APPLICATION ADVANCED DIPLOMA IN ACCOUNTANCY

CA 2.4: TAXATION

THURSDAY 11 DECEMBER 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

	Aged 2 to 5 years		Aged over 5 years	
Motor vehicles for the transport of ten or more persons, including the driver	**Customs duty**	**Excise duty**	**Customs duty**	**Excise duty**
	K	K	K	K
Sitting capacity of 10 but not exceeding 14 persons including the driver	20,090	25,112	10,045	12,556
Sitting capacity exceeding 14 but not exceeding 32 persons	43,984	0	15,639	0
Sitting capacity of 33 but not exceeding 44 persons	97,742	0	21,992	0
Sitting capacity exceeding 44 persons	122,177	0	48,871	0

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)

Mpika Farms Plc is a Zambian resident company engaged in farming and manufacturing operations. At the start of January 2025, the Directors estimated the taxable profit from manufacturing operations and the estimated taxable profits from farming operations to be as follows:

	K
Estimated taxable profit from manufacturing	19,600,000
Estimated taxable profit from farming	73,500,000

You have been provided with the following information relating to the actual results from manufacturing and farming operations for the year ended 31 December 2025:

Manufacturing Operations

The tax adjusted profit before capital allowances for the tax year 2025 from manufacturing operations was K42,800,000. At 1 January 2025, the company held a building used in manufacturing operations which was constructed and brought into use five (5) years ago at a cost of K33,000,000, comprising the following items:

	K
Land	12,000,000
Storeroom for raw materials	2,400,000
General administration offices	4,200,000
Production factory	14,400,000
	33,000,000

Capital allowances on implements, plant and machinery used in manufacturing were determined to be K13,500,000 for the tax year 2025.

Farming operations

The net profit figure from farming operations as per accounts for the year ended 31 December 2025 was K81,706,500. This profit figure was arrived at after taking into account the following items:

(1) The purchase of seeds for K1,123,400, purchase of fertilizers for K8,555,100, expenditure on chemicals for crop production amounting to K5,170,600, expenditure on animal feed amounting to K6,888,200, veterinary expenses of K4,612,400.

(2) Expenditure on the purchase of 50 Acres of farm land at a cost of K1,125,000 and expenditure on the purchase of 180 Acres of farm land at a cost of K15,600,000.

(3) Maintenance expenses comprising water pump maintenance expenses of K15,000, irrigation system maintenance expenses of K123,000 and repair cost for tractors and farm equipment of K115,400.

(4) Professional and legal fees comprising fees paid for audit and accounting fees amounting to K796,000, legal fees in connection with the recovery of trade debts of K1,450,000, land conveyancing fees of K567,500 and legal fees on defending title to farm land of K1,125,000.

(5) Gifts and entertainment comprising expenditure on entertaining employees of K67,500, expenditure on hospitality for customers of K116,300, staff refreshments of K88,000 and gifts of farm produce to the less privileged (valued at K300 per recipient) totalling K66,000.

(6) Employee and director's emoluments which included employee's salaries of K145,200,000, director's emoluments of K61,300,000, severance pay of K22,400,000 and compensation for loss of office amounting to K12,150,000. Director's emoluments include the annual salary of K4,200,000 for the Farm Manager who is accommodated in a company owned house for which he does not pay any rent.

(7) Bad debt expenses which included trade debts written off amounting to K241,000, employee loans written off amounting to K286,000, increase in general provision of bad debts of K187,700 and decrease in specific provision of K342,000.

(8) Miscellaneous expenses comprising depreciation charges of K15,600,000, expenditure on sorting, cleaning, and grading of farm produce of K256,500, refrigeration and storage costs for perishable products amounting to K3,526,000, distribution and selling costs of farm produce of K6,342,000, ZRA penalties for late tax submissions of returns of K525,000 and general allowable operating expenses of K18,760,500.

(9) Income credited to accounts which included fixed deposit interest of K4,250,000 (net), rental income of K18,800,000 and profit on sale of farm implements of K3,225,000.

Additional information on farming operations:

(i) On 1 January 2025, the company had an unrelieved tax loss from farming amounting to K90,600,000, which was suffered during the tax year 2024.

(ii) The company held the following implements, plant and machinery on 1 January 2025, which are used in farming operations. The assets were acquired at the following costs and brought into use on the following dates:

Date	**Asset**	**Original cost** **K**
10 April 2023	Delivery trucks for farm produce	1,350,000
16 October 2024	Farm implements	1,196,000

The farm implements were sold during the tax year 2025 for K1,232,000.

The company additionally incurred the following expenditure during the year ended 31 December 2025 on farming operations which was not charged to the statement of profit or loss in computing the net profit figure shown above:

	K
Purchase of Ford Everest SUV car (2,700 cc)	1,800,000
Purchase of Farm tractors	6,458,500
Expenditure on Installation of Irrigation system	2,800,000
Construction of four (4) farm dwellings at K350,000 each	1,400,000
Installation of cold storage facilities	1,800,000

The Ford Everest SUV was provided to the Farm Manager on a personal to holder basis. His private use of the vehicle during the year was 40%.

Required:

(a) Compute the amount of provisional income tax paid by Mpika Farms plc in the tax year 2025. **You are NOT required to state the due dates for the payment of the tax.** (2 marks)

(b) Calculate the final taxable profits after capital allowances from manufacturing operations for Mpika farms plc for the tax year 2025: (7 marks)

(c) Compute the final taxable profits from farming operations after capital allowances for Mpika farms plc for the tax year 2025: (19 marks)

(d) Calculate the amount of company income tax payable by Mpika plc farms for the tax year 2025. (7 marks)

(e) Assuming the company pays the income tax you have computed above on 31 August 2026 and also submits the self-assessment income tax return on this date:

(i) Determine the amount of penalties and interest arising on the late payment of the tax. You should assume that the Bank of Zambia discount rate is 14.5% per annum. (3 marks)

(ii) Determine the amount of penalties arising from on the late submission of the self-assessment return. (2 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) optional scenario questions in this section.

Attempt any THREE (3) questions.

<u>QUESTION TWO</u>

You are employed in the tax department of a firm of Chartered Accountants. Your Supervisor has asked you to prepare brief notes explaining how the fundamental principles of the IESBA Code of Ethics for professional accountants apply to the provision of tax services.

You have also been provided with the information relating to Gideon Zulu a client of your firm.

Gideon Zulu has been employed as a Software Engineer at DS Plc on a three-year (3) contract which commenced on 1 January 2023. He resigned from employment on 31 August 2025 as he wishes to venture into consultancy.

During the period of employment in the tax year 2025, he was entitled to an annual basic salary of K780,000 payable monthly, on the last day of the month. He was also entitled to a housing allowance of 20% of the basic salary and a transport allowance of 5% of the basic salary. During the year 2025 he received a refund of medical bills he incurred in the month of March 2025 amounting to K45,000. Gideon Zulu used his own private car, a 2000 cc Nissan Xtrail, to carry out his duties of employment.

During the period of employment, he travelled a total of 6,200 kilometers in the private car out of which 4,300 kilometers have been agreed with the Commissioner General to be for employment purposes. He incurred motor car running expenses of K9,000 during the period of employment. Gideon bought the car at a cost of K450,000 in November 2022.

During the year 2025 the company made the following payments in relation to his private residence:

	K
Electricity bills per month	1,500
Salary for gardener per month	1,800
Internet services per month	1,200
Salary for security guard per month	1,400

Gideon's other income for the year 2025 was as follows:

	K
Consultancy fees	34,000
Dividends from a LUSE listed company	40,000
GRZ Bond interest	55,000

Copyright royalties	51,000

The above amounts represent the actual cash received. Income tax paid during the year under PAYE was K123,800.

Required:

(a) Explain how the following fundamental principles of the IESBA code of ethics apply to the provision of tax services:

(i) Professional competence and due care. (2 marks)

(ii) Confidentiality. (2 marks)

(b) Compute the amount of the final income tax payable by Gideon Zulu for the charge year 2025. You should indicate using a zero (0) all benefits from employment that are exempted from tax. (16 marks)

[Total: 20 Marks]

QUESTION THREE

You are employed in tax practice. You have been presented with the following information relating to three (3) companies:

(1) BEX Ltd, was incorporated in a country known as ZIM, however its effective management and control are exercised from Zambia where it has the majority of its operations.

(2) DEX Ltd was incorporated and has its registered office in a country known as BRC, but it undertakes the majority of its operations in Zambia where it has ten (10) branches. Once in a while the Board of Directors meet in Zambia for Annual General Meetings (AGM). Management is planning to incorporate a subsidiary in Zambia next year.

(3) VEX Ltd was incorporated in Zambia in 2015. It has six (6) branches in a country known as GreenLand, where board meetings are held on a quarterly basis.

You have further been assigned to prepare the VAT return for EMC Constructions Ltd, a Zambian resident company operating in the construction industry. The company is a member of the Association of Building and Civil Engineering Contractors of Zambia and is registered for VAT under the Cash Accounting Scheme for VAT purposes. The company has provided you the following information in respect of the month ended 31 October 2025:

(1) Standard rated sales invoices of K81,600,000 were issued to customers during the month. The total amount of cash received in respect of these invoices during the month of October 2025, was 40%. The balance was still outstanding at the end of the month and will be settled by clients in six (6) equal monthly instalments of K8,160,000 each.

(2) Standard rated purchases for the month amounted to K41,800,000. This figure includes purchases of construction materials on credit from suppliers, which represents 70% of the total purchases which will be settled on 31 December 2025. The remaining balance was paid for in cash during the month.

(3) Standard rated expenses for the month included advertising expenses amounting to K179,800, diesel for delivery trucks of K290,000, petrol for pool motor cars amounting to K208,800, entertainment expenses for employees of K67,280 and administrative expenses amounting of K162,400.

All of the above figures for the expenses are inclusive of VAT. Expenditure on diesel and petrol was paid for in cash during the month. Only 40% of the expenditure on the remaining expenses was paid for during the month. The remaining balance will be settled at the end of November 2025.

(4) Bad debts written off during the month in relation to standard rated invoices were K450,000. The bad debts were written off on 31 October 2025 and they arose in respect of an invoice which was due for payment on 30 January 2024.

(5) The company purchased a Toyota Fortuner car for K1,740,000 which has a cylinder capacity of 2,800 cc and has been provided to the Operations Manager, on a personal to holder basis. The company also acquired construction equipment at a cost of K18,328,000 (VAT Inclusive). Both of the above assets were acquired under an eighteen (18) – month credit facility. The company was required to pay an initial deposit of 30% of the purchase price for each asset on 1 October 2025. The balance will be paid in 18 equal instalments commencing on 1 November 2025 in each case.

(6) The company sold office equipment, which was surplus to its requirements for K211,446(VAT inclusive) on 27 October 2025, receiving an immediate cash payment of 60%. The remaining balance will be settled by the client on 27 November 2025.

(7) Unless stated otherwise all of the above figures are exclusive of VAT.

Required:

(a) Describe the criteria used to establish whether a company is resident in Zambia. (2 marks)

(b) Explain whether each one of the above companies, BEX, DEX and VEX will be regarded as being resident in Zambia for taxation purposes. (6 marks)

(c) Calculate the amount of VAT payable/refundable by EMC Constructions Limited for the month of October 2025. You should indicate by the use of a zero (0) all items on which VAT is not chargeable or recoverable. (12 marks)

[Total:20 Marks]

QUESTION FOUR

You are employed in a firm of Chartered Accountants and you have been assigned to deal with the tax affairs of your client, Tawila. The following information has been provided to you:

In January 2025, Tawila purchased a second hand 1490cc Toyota Belta sedan car from Japan at a price of US$5,000. The vehicle was manufactured in January 2008. The charge for insurance was US$900 and freight up to the port of Dar es Salaam was $3,900. Clearing and forwarding costs of US$600 were incurred to bring the motor vehicle into Zambia. He further incurred incidental costs of transporting the vehicle from the Nakonde border post to Lusaka amounting to $1,500. In Lusaka, Interpol clearance fee was K300, vehicle registration fees were K4,000 comprehensive motor car insurance costs were K12,000 and Road tax was K600.The exchange rate provided by the Commissioner General at the time of importation of the vehicle was K24.50 per US$.

The value for import Value Added Tax purposes for such type of motor vehicle should be taken to be K71,413. Motor vehicle fees, Asycuda processing fees and carbon emission surtax should be ignored

During the year ended 31 December 2025, Tawila additionally entered into the following transactions:

(1) In March 2025, he sold an artisanal mining licence for minerals which he was granted three (3) years ago receiving proceeds of K500,000 from the sale. The value of the mining rights as determined by the Commissioner General on that date was K600,000.

(2) In April 2025, he sold 12,000, K1 ordinary shares he held in DEG Ltd a private limited company for K8.25 per share being the open market value determined using share valuation methods approved by the Commissioner General. He acquired each share ten years ago at a price of K3.50 per share.

(3) In May 2025, he sold copyrights for a book he published some years ago to an unconnected third party for K250,000. The value of the copy rights as determined by the Commissioner General was K260,000.

(4) In July 2025, he sold his old Toyota Landcruiser SUV for cash proceeds of K150,000 to an unconnected person. The open market value of the car on the date of sale was K155,000.

(5) In August 2025, he sold a farm land to his nephew at a discounted price of K10,000. He bought the land ten (10) years ago at a cost of K30,000. The farm land had a market value of K800,000 on the date of sale.

Required:

(a) Calculate the customs value of the Toyota Belta car and the total import taxes paid by Tawila on the importation of the motor vehicle. (6 marks)

(b) Explain any four (4) methods used to determine the value for excise duty purposes on goods manufactured in Zambia. (4 marks)

(c) Explain the Property Transfer Tax implications of each of the transactions (1) to (5) above entered into by Tawila in the tax year 2025. Your answer should include calculations of the amount of Property Transfer Tax arising where applicable. (10 marks)

[Total: 20 Marks]

<u>QUESTION FIVE</u>

Musanshi and Chisanshi sharing profits and losses in the ratio 3:2 respectively. Partnership's financial statements are prepared annually to 31 December. Partnership salaries are K228,000 per annum for Musanshi and K182,400 per annum for Chisanshi. The partners are also entitled to annual interest on capital at the rate of 15% per annum and 10% per annum respectively, on each individual's capital account balance at the start of the year.

Their capital account balances as at 1 January 2025 were as follows:

	Musanshi	**Chisanshi**
Capital balances at 1 January 2025	K855,000	K570,000

On 1 May 2025, a new partner, Lusanshi, was admitted to the partnership. Lusanshi contributed capital of K285,000 on joining the partnership on 1 May 2025.

The partnership agreement was changed with effect from 1 May 2025, after Lusanshi joined the partnership and provided for the following:

(1) Annual partnership salaries for Musanshi and Chisanshi were revised to K285,000 and K239,400 respectively, while Lusanshi was to be entitled to an annual salary of K228,000.

(2) Musanshi's and Chisanshi's annual interest on their opening capital balances was increased to 20% and 15% respectively.

(3) Lusanshi was to be entitled to interest of 10% per annum on the capital balance she contributed on joining the partnership.

(4) Any balance of profits was to be shared amongst Musanshi, Chisanshi and Lusanshi in the ratio 5:3:2 respectively.

Additional information

The partnership incurred a tax adjusted loss of K5,147,000 for the tax year 2024.

The final tax adjusted profits for the partnership for the year ended 31 December 2025 was K1,767,000.

Required:

(a) Prepare a computation showing the allocation of the taxable profit to each partner in the tax year 2025, before loss relief. (11½ marks)

(b) Compute the final taxable profit for each partner for the tax year 2025, after any available loss relief. You should show how much of the loss brought forward from the previous year will remain unrelieved for each partner as at 31 December 2025.

(8½ marks)

[Total: 20 Marks]

END OF PAPER

CA 2.4 TAXATION

SUGGESTED SOLUTIONS

SOLUTION ONE

(a) COMPUTATION OF PROVISIONAL INCOME TAX PAID IN THE TAX YEAR 2025

	K
Estimated taxable profit from farming	
(K73,500,000 x 10%)	7,350,000
Estimated taxable profit from manufacturing	
(K19,600,000 x 30%)	5,880,000
	13,230,000

(b) COMPUTATION OF FINAL TAXABLE PROFITS FROM MANUFACTURING

	K
Profit before capital allowances	42,800,000
Less	
Capital allowances on buildings (W)	(924,000)
Capital allowances on IPM	(13,500,000)
Final taxable profit	28,376,000

WORKINGS

COMPUTATION OF THE QUALIFYING COST FOR IBA PURPOSES

	K
Total cost	33,000,000
Less cost of land	(12,000,000)
	21,000,000
10% of K21,000,000	2,100,000

The total cost of the non-qualifying part, comprising the general administration offices of K4,200,000 is more than K2,100,000. Therefore, they will be classified as commercial buildings and not as industrial buildings.

COMPUTATION OF ALLOWANCES ON BUILDINGS

	Allowance K
Store room for raw materials	
Wear and tear allowance	
(K2,400,000 x 5%)	120,000
Factory	
Wear and tear allowance	
(K14,400,000 x 5%)	720,000
General administration offices	
Wear and tear allowance	
(K4,200,000 x 2%)	84,000
Total allowances	924,000

(c) COMPUTATTION OF FINAL TAXABLE PROFITS FOR THE TAX YEAR 2025

	K	K
Profit as per accounts		81,706,500
Add		
Purchase of 50 Acres farm land	1,125,000	
Purchase of 180 Acres of farm land	15,600,000	
Land conveyancing fees	567,500	
Hospitality for customers	116,300	
staff refreshments	88,000	
Gifts of farm produce to the less privileged	66,000	
Accommodation benefit (K4,200,000 x 37%)	1,554,000	
Employee loans written off	286,000	
increase in general provision of bad debts	187,700	
Depreciation charges	15,600,000	
ZRA penalties	525,000	
Personal to holder motor car benefit	43,200	
		35,758,700
		117,465,200
Less		
Fixed deposit interest	4,250,000	
Rental income	18,800,000	
Profit on sale of farm implements	3,225,000	
Capital allowances	10,960,000	
		(37,235,000)
Taxable profit before loss relief		80,230,200
Less loss relief		
Restricted to (50% x K80,230,200)		(40,115,100)
Final taxable profits		40,115,100

COMPUTATION OF CAPITAL ALLOWANCES

	K
Delivery trucks (K1,350,000 x 25%)	337,500
Balancing charge on disposal of farm implements (K0 – K1,196,000)	(1,196,000)
Ford Everest (K1,800,000 x20%)	360,000
Farm tractors (K6,458,500 x 100%)	6,458,500
Installation of Irrigation system (K2,800,000 x 100%)	2,800,000
Farm dwellings restricted to (K100,000 x 4)	400,000
Cold storage facilities (K1,800,000 x100%)	1,800,000
Total	10,960,000

(d) MPIKA FARMS
COMPANY INCOME TAX COMPUTATION FOR THE TAX YEAR 2025

	K
Non-farming income	
Taxable Profits from manufacturing	28,376,000
Investment income	
Fixed deposit interest (K4,250,000 x 100/85)	5,000,000
Total non- farming income	33,376,000
Taxable profits from farming	40,115,100
Total taxable income	73,491,100
Company income tax on non-farming income	
(K33,376,000 x 30%)	10,012,800
Company income tax on farming income	
(K40,115,100 x 10%)	4,011,510
Income tax liability	14,024,310
Less tax already paid	
Provisional income tax	(13,230,000)
WHT on GRZ bond interest (K5,000,000 x 15%)	(750,000)
	44,310

(e) (i) Penalties and interest for the late payment income tax

(1) The income tax relating to the tax year 2025 will be paid late by 2 months and 9 days (i.e. 71 days) late as it should have been paid on 21 June 2026 but will be paid on 31 August 2026.

A penalty of 5% per month of the overdue tax will be chargeable. The amount of the penalty will be:

5% x K44,310 x 3 = K6,647

(2) Additionally, interest on overdue tax will arise at the BOZ discount rate plus 2%. The applicable rate of interest will therefore be 14.5% + 2% = 16.5% per annum.

The amount of interest payable will be:

16.5% K44,310 x 71/365 = K1,422

(ii) Late submission of self-assessment return

The self-assessment return income tax will be submitted late by 2 months and 9 days late as it should be submitted on 21 June 2026 but will be submitted on 31 August N 2026.

Mpika plc is a company, the penalty will be 2000 penalty units (K800) per month or part thereof. The amount of the penalty will be:

2000 penalty units x 3 = 6000 penalty units

Or K800 x 3 = K2,400

SOLUTION TWO

(a) **(i) Professional competence and due care**

Members shall maintain professional knowledge and skill at a level required to ensure that a client or employer receives competent professional services based on current developments in practice, legislation and techniques and shall act diligently and in accordance with applicable technical and professional standards when providing professional services.

(ii) Confidentiality

Members shall respect the confidentiality of information acquired as a result of professional and business relationships. They should therefore, not disclose any such information to third parties without proper and specific authority, unless there is a legal or professional right or duty to disclose, nor use the information for the personal advantage of the professional accountant or third parties.

(b) GIDEON ZULU

PERSONAL INCOME TAX COMPUTATION FOR THE TAX YEAR 2025

	K	K
Basic pay (K780,000 x 8/12)		520,000
Transport allowance (5% x K520,000)	26,000	
Housing allowance (20% x K520,000)	104,000	
Refund of medical bills (exempt)	0	
Electricity bills (K1,500 x 8)	12,000	
Salary for gardener (K1,800 x 8)	14,400	
Internet services (K1,200 x 8)	9,600	
Salary for security guard (K1,400 x 8)	11,200	
		177,200
		697,200
Other Income		
Copyright royalties K51,000 x 100/85)	60,000	
Consultancy fees (K34,000 x 100/85)	40,000	
		100,000
		797,200
Less: allowable deductions		
Capital allowances on motor car		
(K450000 x 0.2 x 4,300/6,200)	62,419	
Qualifying motor expenses		
(K9,000 x 4,300/6,200)	6,242	
		(68,661)
Taxable income		728,539
First K61,200 x 0%		0
Next K24,000 x 20%		4,800
Next K25,200 x30%		7,560
Excess (K728,539 – K110,400) x 37%		228,711
Income tax liability		241,071
Less:		

Income tax paid under PAYE	123,800	
WHT – Royalties (K60,000 x 15%)	9,000	
WHT - Consultancy (K40,000 x 15%)	6,000	
		(138,800)
Income tax payable		102,271

SOLUTION THREE

(a) Residence of companies

A company is resident in Zambia if:

(i) The company was incorporated or formed in Zambia; or

(ii) The effective management and control of the company's business or affairs are exercised in Zambia.

The place of effective management refers to the place where key management decisions relating to the operations of the company are in substance made.

(b) The following is the resident status of each of the three (3) companies:

(1) BEX Ltd is resident in Zambia as effective management and control is exercised from Zambia. This is in spite it being incorporated in ZIM.

(2) DEX Ltd is resident in BRC, where it was incorporated. Effective management and control in another country only exists if the board of directors meets in a place for the purposes of decision making.

(3) VEX LTD is resident in Zambia as this is where the company was incorporated. This is in spite of the fact that the board of directors holds quarterly meetings in GreenLand, where the company has branches.
(2 marks for each valid point up to a maximum of 6 marks)

(c) EMC CONSTRUCTIONS

COMPUTATION OF VAT PAYABLE FOR THE MONTH OF OCTOBER 2025

Output VAT	K	K
Standard rated sales (K81,600,000 x 40% x 16%)		5,222,400
Sale of office equipment (K211,446 x 4/29) x 60%		17,499
		5,239,899
Input VAT		
Standard rated purchases		
(K41,800,000 x 30% 16%)	2,006,400	
Advertising (K179,800x 4/29) x 40%	9,920	
Petrol	0	
Diesel (K290,000 x 4/29 x 90%)	36,000	
Entertaining employees	0	
Administrative expenses (K162,400 x 4/29) x 40%	8,960	
Bad debt relief	0	
Toyota Fortuner	0	
Construction equipment		
(K18,328,000 x 4/29) x 30%	758,400	
		(2,819,680)
VAT payable		2,420,219

SOLUTION FOUR

(a) COMPUTATION OF CUSTOMS VALUE AND IMPORT TAXES

	$	
Cost	5,000	
Insurance	900	
Freight	3,900	
Clearing and forwarding	600	
	10,400	
Exchange rate	x K24.50	
Customs value in ZMW	254,800	
	Value of the Vehicle	Import taxes
	K	K
Customs value	254,800	
Specific customs duty	9,678	9,678
Specific excise duty	8,387	8,387
Import VAT (K71,413 x 16%)	11,426	11,426
Surtax Charge	2,000	2,000
Total value of the vehicle	286,291	
Total import taxes		31,491

(b) VDP for excise duty on goods manufactured in Zambia

(1) The price at which a licensed manufacturer of excisable goods offers the goods for sale on the open market
(2) The lowest price at which identical goods in the same quantity (or almost the same quantities) are sold within Zambia by another licensed manufacturer in the open market
(3) The lowest price at which identical goods in different quantities are sold within Zambia by another licensed manufacturer in the open market
(4) The lowest price at which similar goods in the same quantity (or almost the same quantities) are sold within Zambia by another licensed manufacturer in the open market
(5) The lowest price at which similar goods in different quantities are sold within Zambia by another licensed manufacturer in the open market
(6) The price which the goods would fetch, less profit and other costs beyond the manufacturing level
(7) The computed value comprising the cost of production, profit and other costs to the manufacturing level.

(c) The Property Transfer Tax implications are as follows:

(1) The sale of an artisanal mining license will constitute a transfer of property with a realized value K600,000 being higher than the actual proceeds of K500,000.

Property Transfer Tax on Mining rights is at the rate of 10% and this will amount to:

10% x K600,000 = K60,000

(2) The sale of shares in a private limited company will constitute a transfer of property with a realised value equal to the higher of the nominal value of the shares and their open market value. The realised value is therefore the open market value of K99,000 (K8.25 x 12,000 shares, being higher than their nominal value of K12,000 (K1 x 12,000 shares)

PTT arising is: K99,000 x 8% = K7,920

(3) The sale of copyrights will constitute a transfer of property with a realized value K260,000 being higher than the actual proceeds of K250,000.

Property Transfer Tax paid: 8% x K260,000 = K20,800

(4) The transfer of a motor car falls outside the scope of property transfer tax as motor vehicles are classified as chattels for property transfer tax purposes. Therefore, no property transfer tax is payable on the transfer of motor car.

(5) The sale of farm land by Tawila to his nephew will constitute a transfer of property with a realized value K800,000 being higher than the actual proceeds of K10,000, as a nephew is not an immediate family member.

PTT arising is: K800,000 x 8% = K64,000

SOLUTION FIVE

(a) ALLOCATION OF PROFITS

1.01.2025-30.04.2025	Total	Musanshi	Chisanshi	Lusanshi
	K	K	K	K
Partnership salaries	136,800	76,000	60,800	0
Interest on capital	61,750	42,750	19,000	0
Total appropriations	198,550	118,750	79,800	0
Balance (3:2)	390,450	234,270	156,180	0
	589,000	353,020	235,980	0
1.05.2025-30.12.2025				
Partnership salaries	501,600	190,000	159,600	152,000
Interest on capital	190,000	114,000	57,000	19,000
Total appropriations	691,600	304,000	216,600	171,000
Balance (5:3:2)	486,400	243,200	145,920	97,280
	1,178,000	547,200	362,520	268,280
Total Allocations	1,767,000	900,220	598,500	268,280

(b) COMPUTATION OF FINAL TAXABLE PROFITS BY PARTNERS

	Total	Musanshi	Chisanshi	Lusanshi
	K	K	K	K
Allocations before loss relief	1,767,000	900,220	598,500	268,280
Less loss relief (W)	(749,360)	(450,110)	(299,250)	-
Final taxable profit	1,017,640	450,110	299,250	268,280

Workings

Allocation of loss	Total	Musanshi	Chisanshi
	K	K	K
Salaries	410,400	228,000	182,400
Share of balance 3: 2	(5,557,400)	(3,334,440)	(2,222,960)
Share of losses	(5,147,000)	(3,106,440)	(2,040,560)
Losses b/f - at 1 Jan 2025		3,106,440	2,040,560
Loss to be relieved restricted to 50% of taxable profits		(450,110)	(299,250)
Unrelieved Losses c/f – 31 Dec 2025		2,656,330	1,741,310

END OFSUGESTED SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA APPLICATION ADVANCED DIPLOMA IN ACCOUNTANCY

CA2.5: FINANCIAL MANAGEMENT

FRIDAY 12 DECEMBER 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 and Annuity tables are attached at the end of the paper.

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

SECTION A

This question is Compulsory and must be attempted.

<u>QUESTION ONE</u> – (COMPULSORY)

PPC Limited has identified a need to upgrade its machinery to stay competitive in the market and enhance overall operational efficiency. The Management team at PPC Limited is considering financing the acquisition of new machinery through equity finance. The company is not yet listed on the stock exchange.

The new investment in machinery would start immediately and last four (4) years. The company has gathered the following information:

(1) The machinery cost K260,000.

(2) Annual sales are expected to be 50,000 units in Years 1 and 2 and will then fall by 10,000 units per year in both Years 3 and 4.

(3) The selling price in first-year terms is expected to be K5 per unit and this is then expected to inflate by 3% per annum.

(4) The variable costs are expected to be K2.50 per unit in current terms and the incremental fixed costs in the first year are expected to be K1.20 per unit in current terms. Both of these costs are expected to inflate at 5% per annum.

(5) The machinery is expected to have a residual value at the end of the project of K80,000 in money terms.

(6) The project will require working capital investment equal to 10% of the expected sales revenue. This investment must be in place at the start of each year.

(7) Corporation tax is 30% per annum and is paid one year in arrears. 25% reducing balance writing-down allowances are available on the asset cost.

(8) General inflation is 4% and the real cost of capital is 7.7%.

(9) The cost of the initial market research was K24,000.

The company is concerned with the current working capital management policy. There are plans underway to review the current policy in order to improve the efficiency and effectiveness of operations in the company.

In particular management wants to focus on receivables and payables management as poor management of these may have an adverse impact on the efficiency and effectiveness of the company in terms of liquidity and profitability.

The Finance Director of PPC Limited informed the Board of Directors that since there are different methods of equity financing available the company needs to select the best option.

Assume you are the financial consultant of PPC Limited.

Required:

(a) Evaluate the proposed investment in the Machinery using the Net Present Value method. (22 marks)

(b) Discuss the types of equity financing available to the company considering the advantages and disadvantages of each. (10 marks)

(c) Explain how the company can minimize the cost of receivables. (8 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt any THREE (3) questions.

QUESTION TWO

Green Tec Plc plans to raise K20 million in order to expand its business and wishes to evaluate an issue of 8% loan notes, as a source of finance for the expansion. Extracts from the financial statements of Green Tec Plc are as follows:

Extract of statement of profit or loss		
	K'million	**K'million**
Income	140	
Cost of sales and other expenses	(112)	
Profit before interest and tax	28	
Finance charges (interest)	(2.8)	
Profit before tax	25.2	
Taxation	(7.6)	
Profit after tax	17.6	
Extract of statement of financial position		
Equity finance		
Ordinary shares (K1 nominal)	25.0	
Reserves	118.5	
		143.5
Non - Current liabilities	36.0	
Current liabilities	38.3	
		74.3
Total equity and liabilities		**217.8**

It is expected that investing K20 million in the business will increase income by 5% over the first year. Approximately 40% of cost of sales and other expenses are fixed, the remainder of these costs are variable. Fixed costs will not be affected by the business expansion, while variable costs will increase in line with income.

Green Tec Plc pays corporation tax at the rate of 30%. The company has a policy of paying out 40% of profits after tax as dividends to shareholders. Current liabilities are expected to increase by 3% by the end of the first year following the business expansion.

Average values of other companies similar to Green Tec Plc:

Debt/equity ratio (book value basis):	30%
Interest cover:	10 times
Operational gearing (contribution/PBIT):	2 times
Return on equity:	15%

Required:

(a) Prepare a set of projected financial statements one year after the proposed business expansion using the extracts from the financial statements of Green Plc. (4 marks)

(b) Assess the impact of financing the business expansion by the loan note issue on the financial position, financial risk and shareholder wealth after one year, using appropriate ratios. (10 marks)

(c) Discuss the circumstances under which the current weighted cost of capital of a company could be used in investment appraisal. (4 marks)

(d) Briefly explain how the limitations of the weighted average cost of capital as a discount rate could be overcome. (2 marks)

[Total: 20 Marks]

QUESTION THREE

KAKA Plc was established in 2021 dealing in irrigation equipment for farmers. The irrigation equipment was on high demand as the country experienced inadequate rainfall for two (2) consecutive seasons and the country encouraged its farmers to integrate irrigation. As at 31 December, 2024, the company prepared a summary statement of its financial position as follows:

Assets	**K'000**
Non-current assets	
Land and Buildings	200,000
Plant and Machinery	90,000
Motor Vehicles	30,000
	320,000
Current Assets	
Inventory	100,000
Receivables	50,000
Short-Term investments	20,000
Cash	10,000
	180,000
Total Assets	**500,000**
Equity and liabilities	
Ordinary Shares of K1	100,000
Reserves	120,000
Total Equity	220,000
Non-Current Liabilities	
12% bonds	70,000
Deferred Taxation	20,000
4.9% redeemable preference shares at K1	60,000
	150,000
Current Liabilities	
Payables	70,000
Taxation	40,000
Declared ordinary dividend	20,000
	130,000
Total Liabilities	280,000
Total equity and liabilities	**500,000**

Additional information:

1. The P/E ratio of a similar company to KAKA is 10.
2. 20% of the trade receivables will not be collected.
3. The company has just paid a total dividend of K20,000 and the dividends are expected to grow at 5% per year for the foreseeable future.
4. The minimum rate of return required by the equity holders of KAKA is 10%.
5. The company's current profit after tax is K50,000.

Required:

(a) Discuss the reasons for conducting the valuation of a company. (6 marks)

(b) Using the summary statement of financial position as 31 December, 2024 and additional information of KAKA plc as above, calculate the value of an ordinary share using:

(i) Book value of assets. (2 marks)

(ii) Net realizable value of assets. (4 marks)

(iii) Price earnings ratio method. (2 marks)

(iv) Dividend based valuation method. (4 marks)

(c) Explain the circumstances under which the net assets basis of valuation would be the preferred method to value the company. (2 marks)

[Total: 20 Marks]

QUESTION FOUR

The Management of QT Business Solutions has raised concerns regarding its working capital management, specifically payables and inventory. Regarding trade payables, QT Business Solutions currently takes 40 days' credit from suppliers on the basis that this is 'free' finance. Annual purchases are K1 million and the company pays overdraft interest of 16%. The company suppliers offer quick settlement discount of 1.45% for payment within 15 days. QT Business Solutions management has noted the following issues in relation to inventory management:

(1) An increase in the number of production bottlenecks experienced by the business.

(2) A rise in the level of interest rates.

(3) A decision to offer customers a narrower range of products in the future.

(4) A switch of suppliers from an overseas business to a local business.

(5) Deterioration in the quality and reliability of bought-in components.

Required:

(a) Explain the objective of working capital management. (3 marks)

(b) Evaluate whether QT Business Solutions should pay sooner in order to take advantage of the discount. (7 marks)

(c) Discuss how each of the issues noted by QT Business Solutions management might affect the level of inventories held by a business. (10 marks)

[Total: 20 Marks]

QUESTION FIVE

MJ Inc. discovered a new advanced data storage device a few years ago. The company spent K800,000 on research and development for the past one (1) year. MJ Inc. is considering launching the device with an expected selling price of K25 per unit and contribution of 45%. This will require an initial capital investment of K22.1 million with a planning time horizon of ten (10) years.

MJ Inc. has ascertained that the probability of an annual demand of 1,000,000 units is 0.55, with a probability of 0.35 that it will be 25% higher, and a 0.1 probability that it will be 20% lower. The total allocated annual fixed costs are K3.5 million, and 42% relates to incremental project fixed costs. The Board Chairperson advised the management against holding inventory for the new device. On the other hand, he encouraged the company to hold cash.

The company's cost of capital is 18%. MJ Inc. pays corporate tax of 30% per year.

Required:

(a) Calculate the expected NPV of the project and advise whether the project should be undertaken or not. (12 marks)

(b) Discuss the reasons for holding inventories and whether they differ from the reasons for holding cash. (8 marks)

[Total: 20 Marks]

END OF PAPER

Formulae

Modigliani and Miller Proposition 2 (with tax)

$$k_e = k_e^i + (1 - T)(k_e^i - k_d)\frac{V_d}{V_e}$$

Two asset portfolio

$$s_p = \sqrt{w_a^2 s_a^2 + w_b^2 s_b^2 + 2w_a w_b r_{ab} s_a s_b}$$

The Capital Asset Pricing Model

$$E(r_i) = R_f + \beta_i(E(r_m) - R_f)$$

The asset beta formula

$$\beta_a = \left[\frac{V_e}{(V_e + V_d(1 - T))}\beta_e\right] + \left[\frac{V_d(1 - T)}{(V_e + V_d(1 - T))}\beta_d\right]$$

The Growth Model

$$P_o = \frac{D_o(1 + g)}{(r_e - g)}$$

Gordon's growth approximation

$$g = br_e$$

The weighted average cost of capital

$$WACC = \left[\frac{V_e}{V_e + V_d}\right]k_e + \left[\frac{V_d}{V_e + V_d}\right]k_d(1 - T)$$

The Fisher formula

$$(1 + i) = (1 + r)(1 + h)$$

Purchasing power parity and interest rate parity

$$S_1 = S_0 x \frac{(1 + h_c)}{(1 + h_b)} \qquad F_0 = S_0 x \frac{(1 + i_c)}{(1 + i_b)}$$

Modified Internal Rate of Return

$$MIRR = \left[\frac{PV_R}{PV_I}\right]^{\frac{1}{n}} \left(1 + r_e\right) - 1$$

The Black-Scholes option pricing model

$$c = P_a N(d_1) - P_e N(d_2) e^{-rt}$$

Where:

$$d_1 = \frac{\ln(P_a / P_e) + (r + 0.5s^2)t}{s\sqrt{t}}$$

$$d_2 = d_1 - s\sqrt{t}$$

The Put Call Parity relationship

$$p = c - P_a + P_e e^{-rt}$$

Present Value Table

Present value of 1 i.e. $(1 + r)^{-n}$

Where r = discount rate
n = number of periods until payment

Discount rate (r)

Periods (n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0·990	0·980	0·971	0·962	0·952	0·943	0·935	0·926	0·917	0·909	1
2	0·980	0·961	0·943	0·925	0·907	0·890	0·873	0·857	0·842	0·826	2
3	0·971	0·942	0·915	0·889	0·864	0·840	0·816	0·794	0·772	0·751	3
4	0·961	0·924	0·888	0·855	0·823	0·792	0·763	0·735	0·708	0·683	4
5	0·951	0·906	0·863	0·822	0·784	0·747	0·713	0·681	0·650	0·621	5
6	0·942	0·888	0·837	0·790	0·746	0·705	0·666	0·630	0·596	0·564	6
7	0·933	0·871	0·813	0·760	0·711	0·665	0·623	0·583	0·547	0·513	7
8	0·923	0·853	0·789	0·731	0·677	0·627	0·582	0·540	0·502	0·467	8
9	0·941	0·837	0·766	0·703	0·645	0·592	0·544	0·500	0·460	0·424	9
10	0·905	0·820	0·744	0·676	0·614	0·558	0·508	0·463	0·422	0·386	10
11	0·896	0·804	0·722	0·650	0·585	0·527	0·475	0·429	0·388	0·305	11
12	0·887	0·788	0·701	0·625	0·557	0·497	0·444	0·397	0·356	0·319	12
13	0·879	0·773	0·681	0·601	0·530	0·469	0·415	0·368	0·326	0·290	13
14	0·870	0·758	0·661	0·577	0·505	0·442	0·388	0·340	0·299	0·263	14
15	0·861	0·743	0·642	0·555	0·481	0·417	0·362	0·315	0·275	0·239	15

(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0·901	0·893	0·885	0·877	0·870	0·862	0·855	0·847	0·840	0·833	1
2	0·812	0·797	0·783	0·769	0·756	0·743	0·731	0·718	0·706	0·694	2
3	0·731	0·712	0·693	0·675	0·658	0·641	0·624	0·609	0·593	0·579	3
4	0·659	0·636	0·613	0·592	0·572	0·552	0·534	0·516	0·499	0·482	4
5	0·593	0·567	0·543	0·519	0·497	0·476	0·456	0·437	0·419	0·402	5
6	0·535	0·507	0·480	0·456	0·432	0·410	0·390	0·370	0·352	0·335	6
7	0·482	0·452	0·425	0·400	0·376	0·354	0·333	0·314	0·296	0·279	7
8	0·434	0·404	0·376	0·351	0·327	0·305	0·285	0·266	0·249	0·233	8
9	0·391	0·361	0·333	0·308	0·284	0·263	0·243	0·225	0·209	0·194	9
10	0·352	0·322	0·295	0·270	0·247	0·227	0·208	0·191	0·176	0·162	10
11	0·317	0·287	0·261	0·237	0·215	0·195	0·178	0·162	0·148	0·135	11
12	0·286	0·257	0·231	0·208	0·187	0·168	0·152	0·137	0·124	0·112	12
13	0·258	0·229	0·204	0·182	0·163	0·145	0·130	0·116	0·104	0·093	13
14	0·232	0·205	0·181	0·160	0·141	0·125	0·111	0·099	0·088	0·078	14
15	0·209	0·183	0·160	0·140	0·123	0·108	0·095	0·084	0·074	0·065	15

Annuity Table

Present value of an annuity of 1 i.e. $\frac{1 - (1 + r)^{-n}}{r}$

Where r = discount rate
n = number of periods

Discount rate (r)

Periods (n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0·990	0·980	0·971	0·962	0·952	0·943	0·935	0·926	0·917	0·909	1
2	1·970	1·942	1·913	1·886	1·859	1·833	1·808	1·783	1·759	1·736	2
3	2·941	2·884	2·829	2·775	2·723	2·673	2·624	2·577	2·531	2·487	3
4	3·902	3·808	3·717	3·630	3·546	3·465	3·387	3·312	3·240	3·170	4
5	4·853	4·713	4·580	4·452	4·329	4·212	4·100	3·993	3·890	3·791	5
6	5·795	5·601	5·417	5·242	5·076	4·917	4·767	4·623	4·486	4·355	6
7	6·728	6·472	6·230	6·002	5·786	5·582	5·389	5·206	5·033	4·868	7
8	7·652	7·325	7·020	6·733	6·463	6·210	5·971	5·747	5·535	5·335	8
9	8·566	8·162	7·786	7·435	7·108	6·802	6·515	6·247	5·995	5·759	9
10	9·471	8·983	8·530	8·111	7·722	7·360	7·024	6·710	6·418	6·145	10
11	10·37	9·787	9·253	8·760	8·306	7·887	7·499	7·139	6·805	6·495	11
12	11·26	10·58	9·954	9·385	8·863	8·384	7·943	7·536	7·161	6·814	12
13	12·13	11·35	10·63	9·986	9·394	8·853	8·358	7·904	7·487	7·103	13
14	13·00	12·11	11·30	10·56	9·899	9·295	8·745	8·244	7·786	7·367	14
15	13·87	12·85	11·94	11·12	10·38	9·712	9·108	8·559	8·061	7·606	15

(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0·901	0·893	0·885	0·877	0·870	0·862	0·855	0·847	0·840	0·833	1
2	1·713	1·690	1·668	1·647	1·626	1·605	1·585	1·566	1·547	1·528	2
3	2·444	2·402	2·361	2·322	2·283	2·246	2·210	2·174	2·140	2·106	3
4	3·102	3·037	2·974	2·914	2·855	2·798	2·743	2·690	2·639	2·589	4
5	3·696	3·605	3·517	3·433	3·352	3·274	3·199	3·127	3·058	2·991	5
6	4·231	4·111	3·998	3·889	3·784	3·685	3·589	3·498	3·410	3·326	6
7	4·712	4·564	4·423	4·288	4·160	4·039	3·922	3·812	3·706	3·605	7
8	5·146	4·968	4·799	4·639	4·487	4·344	4·207	4·078	3·954	3·837	8
9	5·537	5·328	5·132	4·946	4·772	4·607	4·451	4·303	4·163	4·031	9
10	5·889	5·650	5·426	5·216	5·019	4·833	4·659	4·494	4·339	4·192	10
11	6·207	5·938	5·687	5·453	5·234	5·029	4·836	4·656	4·486	4·327	11
12	6·492	6·194	5·918	5·660	5·421	5·197	4·988	4·793	4·611	4·439	12
13	6·750	6·424	6·122	5·842	5·583	5·342	5·118	4·910	4·715	4·533	13
14	6·982	6·628	6·302	6·002	5·724	5·468	5·229	5·008	4·802	4·611	14
15	7·191	6·811	6·462	6·142	5·847	5·575	5·324	5·092	4·876	4·675	15

Standard normal distribution table

	0·00	0·01	0·02	0·03	0·04	0·05	0·06	0·07	0·08	0·09
0·0	0·0000	0·0040	0·0080	0·0120	0·0160	0·0199	0·0239	0·0279	0·0319	0·0359
0·1	0·0398	0·0438	0·0478	0·0517	0·0557	0·0596	0·0636	0·0675	0·0714	0·0753
0·2	0·0793	0·0832	0·0871	0·0910	0·0948	0·0987	0·1026	0·1064	0·1103	0·1141
0·3	0·1179	0·1217	0·1255	0·1293	0·1331	0·1368	0·1406	0·1443	0·1480	0·1517
0·4	0·1554	0·1591	0·1628	0·1664	0·1700	0·1736	0·1772	0·1808	0·1844	0·1879
0·5	0·1915	0·1950	0·1985	0·2019	0·2054	0·2088	0·2123	0·2157	0·2190	0·2224
0·6	0·2257	0·2291	0·2324	0·2357	0·2389	0·2422	0·2454	0·2486	0·2517	0·2549
0·7	0·2580	0·2611	0·2642	0·2673	0·2704	0·2734	0·2764	0·2794	0·2823	0·2852
0·8	0·2881	0·2910	0·2939	0·2967	0·2995	0·3023	0·3051	0·3078	0·3106	0·3133
0·9	0·3159	0·3186	0·3212	0·3238	0·3264	0·3289	0·3315	0·3340	0·3365	0·3389
1·0	0·3413	0·3438	0·3461	0·3485	0·3508	0·3531	0·3554	0·3577	0·3599	0·3621
1·1	0·3643	0·3665	0·3686	0·3708	0·3729	0·3749	0·3770	0·3790	0·3810	0·3830
1·2	0·3849	0·3869	0·3888	0·3907	0·3925	0·3944	0·3962	0·3980	0·3997	0·4015
1·3	0·4032	0·4049	0·4066	0·4082	0·4099	0·4115	0·4131	0·4147	0·4162	0·4177
1·4	0·4192	0·4207	0·4222	0·4236	0·4251	0·4265	0·4279	0·4292	0·4306	0·4319
1·5	0·4332	0·4345	0·4357	0·4370	0·4382	0·4394	0·4406	0·4418	0·4429	0·4441
1·6	0·4452	0·4463	0·4474	0·4484	0·4495	0·4505	0·4515	0·4525	0·4535	0·4545
1·7	0·4554	0·4564	0·4573	0·4582	0·4591	0·4599	0·4608	0·4616	0·4625	0·4633
1·8	0·4641	0·4649	0·4656	0·4664	0·4671	0·4678	0·4686	0·4693	0·4699	0·4706
1·9	0·4713	0·4719	0·4726	0·4732	0·4738	0·4744	0·4750	0·4756	0·4761	0·4767
2·0	0·4772	0·4778	0·4783	0·4788	0·4793	0·4798	0·4803	0·4808	0·4812	0·4817
2·1	0·4821	0·4826	0·4830	0·4834	0·4838	0·4842	0·4846	0·4850	0·4854	0·4857
2·2	0·4861	0·4864	0·4868	0·4871	0·4875	0·4878	0·4881	0·4884	0·4887	0·4890
2·3	0·4893	0·4896	0·4898	0·4901	0·4904	0·4906	0·4909	0·4911	0·4913	0·4916
2·4	0·4918	0·4920	0·4922	0·4925	0·4927	0·4929	0·4931	0·4932	0·4934	0·4936
2·5	0·4938	0·4940	0·4941	0·4943	0·4945	0·4946	0·4948	0·4949	0·4951	0·4952
2·6	0·4953	0·4955	0·4956	0·4957	0·4959	0·4960	0·4961	0·4962	0·4963	0·4964
2·7	0·4965	0·4966	0·4967	0·4968	0·4969	0·4970	0·4971	0·4972	0·4973	0·4974
2·8	0·4974	0·4975	0·4976	0·4977	0·4977	0·4978	0·4979	0·4979	0·4980	0·4981
2·9	0·4981	0·4982	0·4982	0·4983	0·4984	0·4984	0·4985	0·4985	0·4986	0·4986
3·0	0·4987	0·4987	0·4987	0·4988	0·4988	0·4989	0·4989	0·4989	0·4990	0·4990

This table can be used to calculate $N(d)$, the cumulative normal distribution functions needed for the Black-Scholes model of option pricing. If $d_i > 0$, add 0·5 to the relevant number above. If $d_i < 0$, subtract the relevant number above from 0·5.

CA 2.5: FINANCIAL MANAGEMENT

SUGGESTED SOLUTIONS

<u>SOLUTION ONE</u>

(a) NPV EVALUATION

WORKINGS

NOTE 1

As the question involves both tax and inflation and has different inflation rates the money method must be used. Hence the cash flows in the cash flow table must be inflated and the discounting should then be carried out using a money cost of capital. As a money cost of capital is not given it must be calculated using the Fisher formula: (1 + i) = (1 + 0.077) x (1 + 0.04) = 1.12 Therefore, i the money cost of capital is 0.12 or 12%

Year	NOTE 4	VALUE	Tax Saved 30%	Timing
		K000	K000	
		260		
1	allowance 25%	65	19.5	2
		195		
2	allowance 25%	49	14.7	3
		146		
3	allowance 25%	37	11.1	4
		109		
4	Residual value	80		
	Balancing allowance	29	8.7	5

	NOTE 2	Sales	WC need @10@	WC Cashflow	TIMING
		K000	K000	K000	K000
	WORKING CAPITAL				
		K000	10%		
1	sales 50 x 5	250	25	-25	0
2	Sales 50x5x1.03	257.5	25.75	-0.75	1
3	Sales 40*5*1.03*1.03	212.18	21.218	4.532	2
4	Sales 30*5*1.03*1.03*1.03	163.9	16.39	4.828	3
				16.39	4

NOTE 3

VARIABLE COSTS	1	2	3	4
50X2.5X1.05	131.25			
131.25X1.05		137.81		
40X2.5X1.05^3			115.76	
30X2.5X1.05^4				91.16
Total	131.25	137.81	115.76	91.16

NPV COMPUTATION	Note	0	1	2	3	4	5
		K000	K000	K000	K000	K000	K000
Revenue	2		250	257.5	212.18	163.9	
Variable costs	3		131.25	137.81	115.76	91.16	
Fixed costs			63	66.15	69.46	72.93	
Net Revenue Cash flow			55.75	53.54	26.96	-0.19	
Tax @ 30%				-16.725	-16.062	-8.088	0.057
Asset cost/Residual value		-260				80	
Tax savings on CA	4			19.5	14.7	11.1	8.7
Working capital	2	-25	-0.75	4.532	4.828	16.39	
Total cash flows		-285	55	60.847	30.426	99.212	8.757
Cost of capital @12%	1	1	0.893	0.797	0.712	0.636	0.567
PV		-285	49.115	48.5	21.7	63.1	4.97
NPV		-97.62					

Conclusion: Considering that the NPV is negative, the project should be rejected as it won’t add value to the shareholders wealth.

(b) The types of equity financing available to a company, along with their advantages and disadvantages are as follows:

(1) Ordinary Shares

- **Definition:** Basic ownership in a company, with voting rights and dividends (if declared).
- **Advantages:**
  - No repayment obligation (unlike debt).
  - Attracts investors who want ownership and potential capital gains.

- Provides permanent capital.

- **Disadvantages:**
  - Dilutes existing ownership and control.
  - Dividends are not tax-deductible.
  - Shareholders may pressure management for short-term gains.

(2) Preferred Shares

- **Definition:** Shares with fixed dividends and priority over common shareholders in liquidation.
- **Advantages:**
  - Attractive to investors seeking stable returns.
  - Less dilution of voting control (often non-voting).
  - Flexible dividend policies compared to debt interest.
- **Disadvantages:**
  - Dividends are a fixed obligation (reduces financial flexibility).
  - More expensive than debt financing.
  - Limited appeal if investors want growth and voting rights.

(3) Rights issues

A rights issue is an offer to existing shareholders to subscribe for new shares, at a discount to the current market value, in proportion to their existing holdings.

This right of pre-emption:

- enables them to retain their existing share of voting rights
- can be waived with the agreement of shareholders.
- Shareholders not wishing to take up their rights can sell them on the stock market.

Advantages and disadvantages of rights issues

Advantages:

(1) it is cheaper than a public share issue
(2) it is made at the discretion of the directors, without consent of the shareholders or the Stock Exchange.
(3) it rarely fails
(4) existing shareholders' equity stakes are not diluted, provided they take up their rights.

Disadvantages

There is a limit to how much can be raised through this method as existing shareholders are only willing to invest so much. A rough rule of thumb is that a rights issue could raise up to 25% of the existing equity value of the firm.

(4) Retained Earnings

Retained earnings are the portion of your profits reserved for reinvestment in the company rather than distributed as dividends. There are several reasons for maintaining retained earnings: to keep a healthy pool of working capital, to buy assets or to pay off debts.

There are several advantages to using retained earnings as a source of cash for these things:

(i) It's a cheap source of money, as unlike loans, there are no interest payments or fees.
(ii) Using retained earnings is flexible and fast. There are no conditions on how you spend the money, and there's no waiting for a lender to process your request. You can put retained earnings into R&D, modernize your equipment or hire an expanded staff.
(iii) Retaining earnings can increase your future earnings. You're spending to make your company more profitable, and unlike a loan, you won't have interest payments eating into your future profits.

Disadvantage of retained earnings.

If shareholders think you're relying too much on earnings or not using the money effectively, they may feel cheated of their dividend income. Managers may resolve to spend the money simply because it's there, and thereby waste it. If you need outside capital down the road, you may not have developed the relationships with investors and lenders that you need to secure funding.

(5) Venture Capital (VC)

- **Definition:** Equity investment from specialized firms in high-growth startups or innovative companies.
- **Advantages:**
  - Provides large capital injections for growth.
  - Investors bring expertise, networks, and mentorship.
  - Enhances credibility with other stakeholders.
- **Disadvantages:**
  - Significant dilution of ownership.
  - Loss of autonomy — VCs often demand board seats and influence.
  - Pressure for rapid growth and exit strategies (IPO, acquisition).

(6) Private Equity (PE)

- **Definition:** Investment from private equity firms, often in mature companies needing restructuring or expansion.
- **Advantages:**
  - Access to substantial funds for expansion or turnaround.
  - Strategic guidance and operational expertise.
  - Can improve efficiency and profitability.
- **Disadvantages:**
  - High dilution and loss of control.
  - PE firms may prioritize short-term returns.
  - Exit pressure (sale or IPO within 5–7 years).

(7) Angel Investors

- **Definition:** High-net-worth individuals investing in early-stage companies.
- **Advantages:**
  - Flexible terms compared to institutional investors.
  - Provide mentorship and industry connections.
  - Faster decision-making than VC firms.
- **Disadvantages:**
  - Limited funding compared to VC/PE.
  - Dilution of ownership.
  - Potential conflicts if investor expectations differ from founders.

(8) Initial Public Offering (IPO)

- **Definition:** Selling shares to the public via a stock exchange.
- **Advantages:**
  - Raises large amounts of capital.
  - Enhances visibility, credibility, and liquidity.
  - Provides exit opportunities for early investors.
- **Disadvantages:**
  - Expensive and time-consuming process.
  - Loss of privacy — must comply with strict disclosure regulations.
  - Market volatility affects valuation and capital raised.

(c) MINIMIZING THE COST OF RECEIVABLES

(1) Early settlement discounts – will help reduce the receivables balance and hence the cost.

(2) To minimize the risk of irrecoverable debts occurring, a company should investigate the creditworthiness of all new customers immediately and should continue to assess existing customers periodically.

Information for assessing creditworthiness may come from a variety of sources, such as bank references, trade references, competitors, published information, credit reference agencies. company sales records or credit scoring.

(3) Credit limits should be set for each customer to reflect both the amount of credit available and the length of time allowed before payment is due. A ledger account should be set up and monitored for each customer.

(4) Invoicing and collecting overdue debts efficiently and effectively. Perhaps using a factoring or an in-house debt recovery unit. However, the cost of collection should be minimal.

SOLUTION TWO

(a) The financial statements of Green Tec Plc, including forward projections by one year:

Income Statement

	Current position	**Projected position**
	K'million	K'million
Income	140.0	147.0
Cost of sales and other expenses	(112.0)	(115.4)
Profit before interest and tax	28.0	31.6
Finance charges (interest)	(2.8)	(4.4)
Profit before tax Taxation	25.2	27.2
Taxation@30%	(7.6)	(8.2)
Profit after tax Dividend @40% Retained earnings	17.6 7.04 10.56	19.0 7.60 11.40

Statement of Financial Position

	Current Position		Projected Position	
	K'm	K'm	K'm	K'm
Equity finance				
Ordinary shares	25.0		25.0	
Reserves	118.5	143.5	129.9	154.9
Non-current liabilities		36.0		56.0
Current liabilities		38.3		39.5
Total equity and liabilities		217.8		250.4

(b) The changes in key financial ratios can be compared with the average values of other companies similar to Green Tec Plc.

	Current	Forecast	Average
Debt/equity ratio:	25.1%	36.2%	30%
Interest cover:	10 times	7.2 times	10 times
Operational gearing:	2.6 times	2.4 times	2 times
Return on equity:	12.3%	12.3%	15%
Dividend per share	K0.28	K0.30	
Return on capital employed	15.6%	15.0%	

Impact on financial position and financial risk

The business expansion would lead to a slight fall in operational gearing, from 2.6 times to 2.4 times, indicating a slight fall in business risk. This would occur because the fixed costs would be unchanged, even though income has increased by 5%. Irrespective of the method of finance, the business expansion would therefore exert downward pressure on the total risk of Green Tec Plc.

As might be expected, financing the business expansion through an issue of loan notes would increase gearing as measured by the debt/equity ratio, from 25.1% at the start of the year to 36.2% at the end of the year, indicating an increase in the financial risk of Green Tec Plc. From being currently below the average gearing level of similar companies, Green Tec Plc would have a gearing higher than the average debt/equity ratio. The increase in financial risk is confirmed by looking at interest cover, which would fall from 10 times to 7.2 times, below the 10 times average interest cover of similar companies.

Impact on shareholder wealth

The return on equity is lower than that of similar companies and the expansion of business, financed by the loan note issue, would leave it unchanged at 12.3%. Return on capital employed, the primary accounting ratio, would fall slightly from 15.6% to 15%. Shareholder wealth would be positively influenced, however, by the 7.1% increase in dividend per share from K0.28 per share to K0.30 per share. The overall impact on shareholder wealth of the debt-financed business expansion will depend largely on how the share price reacts to the increase in financial risk.

<u>Workings</u>

Forecast income = 140.0m x 1.05 = K147.0 million Current variable costs = 112.0m x 0.6 = K67.2 million Current fixed costs = 112.0m x 0.4 = K44.8 million Forecast variable costs = 67.2 x 1.05 = K70.56 million

Forecast cost of sales and other expenses = 44.8m + 70.56m = K115.4 million

Increase in finance charges = 20m x 0.08 = K1.6 million Forecast finance charges = 2.8m + 1.6m = K4.4 million

Forecast reserves = 118.5m + (19.0m x 0.6) = K129.9 million Forecast current liabilities = 38.3m x 1.03 = K39.5 million

Current operational gearing = (140m – 67.2m)/28m = 2.6 times Forecast operational gearing = (147m – 70.56m)/31.6m = 2.4 times

(c) The current weighted average cost of capital (WACC) of a company reflects the required returns of existing providers of finance, such as the cost of equity of shareholders and the cost of debt of providers of debt finance, for instance, banks and loan note holders.

The cost of equity and the cost of debt depend on particular elements of the existing risk profile of the company, such as business risk and financial risk. Providing the business risk and financial risk of a company remain unchanged, the cost of equity and the cost of debt, and hence the WACC, should remain unchanged.

Turning to investment appraisal, the WACC could be used as the discount rate in calculating the present values of investment project cash flows. Since the discount rate used should reflect the risk of investment project cash flows, using the WACC as the discount rate will only be appropriate if the investment project does not result in a change in the business risk and financial risk of the investing company.

One of the circumstances which is likely to leave business risk unchanged is if the investment project were an expansion of existing business activities. WACC could therefore be used as the discount rate in appraising an investment project which looked to expand existing business operations.

However, business risk depends on the size and scope of business operations as well as on their nature, and so an investment project which expands existing business operations should be small in relation to the size of the existing business.

Financial risk will remain unchanged if the investment project is financed in such a way that the relative weighting of existing sources of finance is unchanged, leaving the existing capital structure of the investing company unchanged. While this is unlikely in practice, a company may finance investment projects with a target capital structure in mind, about which small fluctuations are permitted.

If business risk changes as a result of an investment project, so that using the WACC of a company in investment appraisal is not appropriate, a project-specific discount rate should be calculated. The capital asset pricing model (CAPM) can be used to calculate a project-specific cost of equity and this can be used in calculating a project-specific WACC.

(d) The **Weighted Average Cost of Capital (WACC)** is widely used as a discount rate in valuation, but it has several limitations as detailed below:

(1) **Assumes Constant Capital Structure**

- WACC presumes the firm's debt-to-equity ratio remains stable, which is unrealistic during growth, restructuring, or distress.

(2) **Ignores Project-Specific Risk**

- WACC reflects the firm's overall risk, not the unique risk profile of individual projects or divisions.

(3) **Market Conditions & Beta Instability**

- Inputs like cost of equity (via CAPM) and cost of debt fluctuate with market conditions, making WACC unstable.

(4) **Not Suitable for Non-Core or International Projects**

- Applying a single corporate WACC to projects in different industries or countries ignores variations in risk and capital costs.

(5) **Circularity in Valuation**

- WACC depends on market values of debt and equity, which themselves depend on valuation outcomes.

Ways to Overcome WACC Limitations

(1). Use Adjusted Discount Rates

- Apply **risk-adjusted discount rates** for projects with different risk profiles.
- Example: A high-risk R&D project should use a higher discount rate than the corporate WACC.

(2). Apply APV (Adjusted Present Value) Method

- Separate the value of the project as if it were all-equity financed, then add the value of financing effects (tax shields, subsidies).
- APV avoids the constant capital structure assumption inherent in WACC.

(3). Division or Project-Specific WACC

- Calculate WACC for each business unit or project, reflecting its own beta, debt capacity, and risk.
- Useful in conglomerates or diversified firms.

(4). Use Real Options Analysis

- For highly uncertain projects, supplement WACC with **real options valuation** to capture flexibility and managerial decision-making under uncertainty.

(5). Scenario & Sensitivity Analysis

- Test valuations under different WACC assumptions to understand the impact of capital structure changes, interest rate shifts, or market volatility.

(6). Country or Sector Risk Premiums

- Adjust WACC for international projects by adding **country risk premiums** or sector-specific betas.

SOLUTION THREE

Reasons:

(1) For a quoted company, this can be done when there is a takeover bid. For unquoted companies, when they wish to go public, there is a scheme of merger, shares are sold shares need to be valued for purposes of taxation, and when the shares have been used as collateral

(2) For subsidiary companies, when the group's holding company is negotiating the sale of the subsidiary

(3) For any company, where a shareholder wishes to dispose of his or her holding and also when a company is being broken up in a liquidation.

(b)

(i) Book value of assets

	K000
Total Assets	500,000
Less: Liabilities	(280,000)
Net Asset Value of Equity	220,000
Number of Ordinary Shares	100,000
Value per share=	K2.20

(ii) Net realizable value of assets

	Km
Total Assets	490,000
Less: Liabilities	(280,000)
Net Asset Value of Equity	210,000

Number of Ordinary Shares	100,000
Value per share=	K2.10

(iii) P/E Ratio

value = 10 x K50,000

= K500,000

Value per share = K500,000/100,000 = K5.00

(iv) Dividend valuation model

Value per share = K20,000 (1.05)/0.10 – 0.05

= K420,000

Value per share = K420,000/100,000 = K4.20

(c).

Asset based valuation model can be used as a measure of the 'security' in share value and as a measure of comparison in a scheme of mergers. One of the reasons why it is not a preferred method is that it does not consider a company's future earnings potential. This can be problematic for companies with significant growth prospects.

SOLUTION FOUR

(a) The main objectives of working capital management are to ensure it has sufficient liquid resources to continue in business and to increase its profitability. Every business needs adequate liquid resources to maintain day-to-day cash flow. It needs enough to pay wages, salaries and accounts payable if it is to keep its workforce and ensure its supplies. Thus, maintaining adequate working capital is not just important in the short term. Adequate liquidity is needed to ensure the survival of the business in the long term. Even a profitable company may fail without adequate cash flow to meet its liabilities.

(b) Trade Payables

Current payables: 40/365 × K1,000,000 = K109,589.04

New payables: 15/365 × K1,000,000 = K41,095.89

Fall in payables: K68,493.15

Interest cost of paying early: 16% × K68,493.15= K10,958.90

Benefit of discount: 1.45% × K1,000,000 = K14,500

There is a net benefit of K3, 541.10 (K14, 500 – K10, 958.90), so do take the discount.

(c) Inventories levels could be affected in the following ways:

(i) An increase in production bottlenecks is likely to result in an increase in raw materials and work-in-progress being processed within the plant. Therefore, inventories levels should rise.

(ii) A rise in interest rates will make the cost of holding inventories more expensive. This may, in turn, lead to a decision to reduce inventories levels.

(iii) The decision to reduce the range of products should result in lower inventories being held. It would no longer be necessary to hold certain items in order to meet customer demand. The decision on the narrower range may partly have been made with inventories holding cost savings as one of the objective.

(iv) Switching to a local supplier may reduce the lead time between ordering an item and receiving it. This should, in turn, reduce the need to carry such high levels of the particular item.

(v) A deterioration in the quality of bought-in items may result in the purchase of higher quantities of inventories to take account of the defective element in inventories acquired and, perhaps, an increase in the inspection time for items received. This would lead to a rise in inventories levels.

SOLUTION FIVE

(a) Expected demand = (1,000,000 × 0.55) + (1,250,000 × 0.35) + (800,000 × 0.1) = 1,067,500 units

Annual expected contribution = 1,067,500 × 45% × K25 = K12,009,375

After tax annual contribution = K8,406,562.5

Incremental fixed costs = K350,000 x 42% =K1,470,000

Period	Cashflow	d.f. @ 18%	P.V.
0	(22,100,000)	1	(22,100,000)
1 – 10	8,406,562.5	4.494	37,779,091.9
1 – 10	(1,470,000)	4.494	(6,606,180)
Expected NPV			**9,072,911.88**

The project should be accepted because it gives a positive NPV of K9.1million meaning the wealth of the shareholders would be increased by this amount.

(b) The objective of managing inventory is to determine and maintain the level of inventory that is sufficient to meet demand, but not more than necessary. Inventories are held for the following reasons:

(i) To meet customer demand; To hold enough inventory for the ordinary production-to sales cycle
(ii) To avoid the problems of running out of inventories; To avoid stock-out losses
(iii) To take advantage of profitable opportunities (for example, buying a product which is expected to rise steeply in price in the future).

These reasons are similar to the transitionary, precautionary and speculative motives that were used to explain why cash is held by a business.

(i)Transaction Motive: Firstly, a business needs cash to meet its regular commitments of paying its accounts payable, its employees' wages, its taxes, its annual dividends to shareholders and so on. This reason for holding cash is what Keynes called the transactions motive.

(ii) Precautionary Motive: This means that there is a need to maintain a 'buffer of cash for unforeseen contingencies. In the context of a business, this buffer may be provided by an overdraft facility, which has the advantage that it will cost nothing until it is actually used.

(iii) Speculative Motive: Some businesses hold surplus cash as a speculative asset in the hope that interest rates will rise. However, many businesses would regard large long-term holdings of cash as not prudent.

END OF SUGGESTED SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA APPLICATION ADVANCED DIPLOMA IN ACCOUNTANCY

CA 2.6: STRATEGIC BUSINESS ANALYSIS

WEDNESDAY 10 DECEMBER 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)

INTEL'S TWO STRATEGIC INFLECTION POINTS

Inntel Corporation has encountered two (2) strategic inflection points within the past twenty (20) years. The first came in the 1980s, when memory chips were Intel's principal business and Japanese manufacturers, intent and dominating in the memory chip business, began cutting prices 10 percent below the prices charged by Intel and other U.S. memory chip manufacturers. Each time U.S. companies matched the Japanese price cuts, the Japanese manufacturers responded with another 10 percent price cut. Intel's management explored a number of strategic options to cope with the aggressive pricing of its Japanese rivals – building a giant memory chip factory to overcome the cost advantage of Japanese producers, investing in research and development (R&D) to come up with a more advanced memory chip, and retreating to niche markets for memory chips that were not of interest to the Japanese.

At the time, Gordon Moore, Intel's chairman and co-founder, and Andrew Grove, Intel's chief executive officer (CEO), jointly concluded that none of these options offered much promise and that the best long-term solution was to abandon the memory chip business even though it accounted for 70 percent of Intel's revenue. Grove, with the concurrence of both Moore and the Board of Directors, then proceeded to commit Intel's full energies to the business of developing ever more powerful microprocessors for personal computers. Intel had invented microprocessors in the early 1970s but had recently been concentrating on memory chips because of strong competition and excess capacity in the market in the microprocessors.

Grove's bold decision to withdraw in the memory chips, absorb a $173 million write-off in 1986, and go all out in microprocessors produced a new strategic vision for Intel – becoming the preeminent supplier of microprocessors to the personal computing industry, making the personal computer (PC) the central appliance in the workplace and the home, and being the undisputed leader in driving PC technology forward. Grove's new vision for Intel and the strategic course he charted in 1985 produced spectacular results. Since 1996, over 80 percent of the world's PCs have been made with Intel microprocessors and Intel has become the world's most profitable chip maker.

Intel encountered a second inflection point in 1998 opting to refocus on becoming the preeminent building – block supplier to the internet economy and spurring efforts to make the internet more useful. Starting in early 1998 and responding to the mushrooming importance of the internet, Intel's senior management launched major new initiatives to direct attention and resources to expanding the capabilities of both the PC platform and the internet. It was this strategic inflection point that led to Intel's latest strategic vision of playing a major role in getting a billion computers conn3ected to the internet worldwide, installing millions of servers, and building an internet infrastructure that would support trillions of dollars of e-commerce and serve as a worldwide communication medium.

Source: Thompson, Strickland and Gamble, Crafting and Executing Strategy, McGraw-Hill International Edition (2007) page 27

Required:

(a) Inflection point in business is a time of significant change in a situation or in short, a turning point. Identify the two (2) inflection points in Intel's operational development.

(6 marks)

(b) Discuss the consequences of the decisions made after these two (2) inflections point to the operations of Intel corporation. (6 marks)

(c) According to Johnson et al (2005), evaluate any five (5) general areas for decision-making as was the case with Intel's board and management that may be regarded as strategic. (15 marks)

(d) Describe any three (3) characteristics of Strategic decisions that are taken in organization. (9 marks)

(e) List four (4) *Ways in which goals are related in support for a mission* of an organization.

(4 marks)

[Total: 40 Marks]

SECTION B:

There are FOUR (4) Optional scenario questions.

Attempt any THREE (3) questions.

QUESTION TWO

Corporate Governance refers to the framework of policies and guidelines that inform a company's conduct, decision-making and practice. Boards of Directors are responsible for the governance of their companies. Strategic risk management is an increasing concern for both boards and senior executives. The shareholders' role in governance is to appoint the directors and the auditors and to satisfy themselves that an appropriate governance structure is in place. The clear strategic plan with clear objectives becomes a good monitoring tool in governance reviews. Within the field of Corporate Governance, agency theory plays an important role as a key perspective. Essentially, the idea is that shareholders are the owners of a corporation who (acting as principal) will hire managers (as agent) to run their company. As such, relevant theories in the field are all based on the notion of economic specialization.

Required:

(a) Describe the primary task of shareholders as 'risk takers' and discuss why it might then be optimal for a corporation to become publicly listed. (6 marks)

(b) Ineffective risk management puts otherwise strong business models in jeopardy. Identify the five (5) element model on corporate governance. (5 marks)

(c) Discuss three (3) broad types of stakeholders influenced by corporate governance policies and their interest. (9 marks)

[Total: 20 Marks]

QUESTION THREE

In recent years there has been many reports and news on industrial accidents in work places that have been attributed to poor management concerns and negligence. The mining and construction industries dominated by foreign investors have been on top of such report. There have been times when management have blamed employees and vice versa. At times they have been treated as mere accidents. However, it is important for Managers to minimise the risks by removing the hazards to the general performance where possible in order to avoid regrettable occurrences like loss of life and profit.

Required:

(a) Recommend three (3) procedural approaches to the mining and construction companies as the main building blocks in risk control. (6 marks)

(b) List any six (6) general benefits companies gain from the management of risk. (6 marks)

(c) Discuss any (4) high risk controls the mining and construction companies would put in place to ensure accuracy of information in financial and Audit reporting. (8 marks)

[Total: 20 Marks]

QUESTION FOUR

Mary just received her gratuity from her employers. Having listened to the investment talk on the radio, she shared the desire to invest in shares at the stock market. After consulting Rose her childhood friend, she was told that Bitecom Inc. the company Rose works for has declared a dividend of K2.00 per share and has cost of equity of 15% for the year 2024 after merging with another company from Asia called Jinex ltd. Despite overvaluation companies during merging, the two companies made a significant improvement in the management of the assets. In the same year Zambia Sugar Plc declared a dividend of K2.00 per share with the cost of equity of 20%.

Required:

(a) Explain some of the problems associated with mergers and acquisitions. (10 marks)

(b) Advise with estimates the value of one share if there is no growth in dividend and when there is a constant growth in dividend of 6% per annum for Bitecom Inc. Company. (10 marks)

[Total: 20 Marks]

QUESTION FIVE

Having been in business for less than five (5) years, Vicmulu Ltd under the new management is planning to place its foot in Congo DR. The new Management team lead by Mr. Twambo Chimunya has placed an ambitious strategy to double the sales and capture more than 50% of the total regional market share. Business managers had agreed to study the regional markets and the report on the table is that most of countries in the region might have some political and economic instability. Despite this, the management team leader believes that by implementing a proper business strategic plan, the company can take advantage of the political instability to capture the new market.

Required:

(a) Discuss how strategic planning affect the productivity of a business. (16 marks)

(b) Discus any two (2) of the three (3) main strategic management elements. (4 marks)

[Total: 20 Marks]

END OF PAPER

CA 2.6 STRATEGIC BUSINESS ANALYSIS

SUGGESTED SOLUTIONS

<u>SOLUTION ONE</u>

(a) **......Intel's turning points in Intel's operational development were:**

(i) **The first inflection** point was in mid-1980s then the memory chips were Intel's principal business and Japanese manufacturers worked to dominate the memory business. Japanese manufacturers cut by 10 percent of the prices of chips charged by Intel another U.S. companies.

The Board through its chairman and management through its CEO of Intel jointly concluded that none of the options available did not offer much promise except that the long-term solution was to abandon the memory chip business although it accounted for 70 percent of Intel's revenue.

The Corporation board proceeded to commit Intel's full energies to the production of of the powerful microprocessors for personal computers.

(iii) **The second inflection** point was in 1998 when Intel's Leaders opted to refocus on becoming the preeminent building-block supplier to the internet economy and spurring effort to make internet more useful.

Intel's Senior managers launched major new initiatives to direct attention and resources to expanding the capability of both the PC platforms and internet.

(b) **The consequences of the decisions made after these two inflections point**

(i) Intel went all out in microprocessors and became the preeminent supplier of microprocessors to personal computing industry.
(ii) Intel made the personal computer (PC) the central appliance in the workplace and the home. The corporation also became the undisputed leader in driving the PC technology forward.
(iii) Since 1996, over 80 percent of the world's PCs have been made with Intel microprocessors and Intel has become the world's most profitable chipmaker.
(iv) It was the second inflection point that led to Intel's latest strategic vision of playing a major role in getting a billion computers connected to the internet worldwide, installing several servers.

(c) **The general areas for decision-making that will normally be regarded as strategic include the following:**

(i) The organization's long-term direction: no specific timescale is envisaged, but you should think in terms of excess of one year and more probably of about five year or more.
(ii) The scope of an organization's activities: this will include both the overall roles and purposes the organization accepts for itself and the activities it undertakes in pursuit of them. Strategic planning considers the whole organization.

(iii) For commercial organizations and for many not -for-profit organizations too, strategy will be about gaining some kind of advantage in competition.

(iv) Strategic management in some organizations will take some form of adapting their activities to fit the business environment. In its simplest form, this will involve adapting products and services to gradually changing customer requirements.

(v) A contrasting approach will be to exploit unique resources and the organization special competences in particular. This approach sees the business environment as something that can be changed by the organization's own actions.

(vi) Strategic decisions are affected by the values and expectations of all the organization's stakeholders. Stakeholders are people who have a legitimate interest in what the organization does.

(d) **Some important characteristics of the strategic decisions include**:

(i) Decisions about strategy are likely to be complex since they are likely to a number of significant factors to take into consideration and a variety of possible outcome to balance against one another.

(ii) There is likely to be a high degree of uncertainty surrounding a strategic decision, both about the precise nature of current circumstances and about the likely consequences of any course of action.

(iii) Strategic decision has extensive impact on operational decision-making, that is, decisions at lower levels in the organization.

(iv) Strategic decisions affect the organization as a whole and require processes that cross operational and functional boundaries within it. An integrated approach is therefore required.

(v) Strategic decisions are likely to lead to change within the organization as resource capacity is adjusted to permit new courses of action. Changes with implications for organizational culture are particularly complex and difficult to manage.

(e) **Ways in which goals are related in support for a mission are:**

(i) Hierarchically, as in the pyramid structure outlined as follows

(ii) Functionally, as when colleagues collaborate on a project;

(iii) Logistically, as when resources must be shared or used in sequence; and

(iv) In wider organization sense, as when senior executives make decisions about their operational priorities, for example, balancing the need to contain costs whilst increasing production by investing in improved plant.

SOLUTION TWO

(a) Describe the primary task of shareholders as 'risk takers' and discuss why it might then be optimal for a corporation to become publicly listed.

Shareholders are the residual claimants of a corporation. As such, they shall only receive money once all other stakeholders have been paid; thus bearing the main risk and why they are regarded as the 'owners' of a corporation. Looking at the firm as a nexus of contracts, equity is essentially functioning as a guarantee for the other parties contracting with it.

Given that shareholders are carrying the main risk of the firm's operations, there are key benefits of having a public listing through the diversification of such risks. Further advantages are having access to a larger pool of available capital, a higher liquidity, and information aggregation in the share price. As long as the benefits outweigh any agency costs, it is optimal for a company to be publicly traded on the stock market.

(b) The Ineffective risk management puts otherwise strong business models in jeopardy. Identify the five-element model on corporate governance.

(i) Culture,
(ii) Leadership,
(iii) Alignment,
(iv) Systems, and
(v) Structure

(c) Discuss three broad types of stakeholders influenced by corporate governance policies.

(i) Internal stakeholders (Employees and Managers) are concern about job security, Good conditions of service, Job satisfaction, and Career development
(ii) Connected Stakeholders (Customers, Suppliers, and Financiers) are concern about good products, regular supplies and reliable and stable financial position.
(iii) External Stakeholders (Community, Government and pressure groups) are concern about CRS, TAXs and economic stability

SOLUTION THREE

(a) The following are the procedural approaches that may help reduce the risks:

(i) Rules and regulations that include statute and corporate governance guidance

(ii) Other codes that include professional and organisational ethical codes

(iii) Procedures that include detailed authorisation of operating procedures

(b) The following are the general benefits from the management of risk:

(i) Increased predictability of cash flows

(ii) Effective processes and systems

(iii) Increased confidence of shareholders and other investors

(c) The following are particular important controls companies should use to ensure accuracy of information in financial reporting:

(i) Full documentation of assets, liabilities and transactions.

(ii) Matching of source documents and accounting records.

(iii) Confirmation of information by suppliers, customers and banks.

(iv) Reconciliation of information from different source documents and other sources.

(v) Completeness checks over documents and accounting entries.

(vi) Repeating accounting calculation.

SOLUTION FOUR

(a) Explain five (5) problems associated with mergers and acquisitions.

(i) Cost- they might be too expensive, especially if resisted by the directors of the target company.

(ii) Customers- customers of the target company may resent a sudden takeover and consider going to other suppliers for their goods.

(iii) Incompatibility- in general, different systems of operations might create indigestion and management overload in the acquired company.

(iv) Asymmetric information highlights the fact that acquisitions market for companies is rarely efficient. The existing management knows more about the company than the purchaser. This can lead to overvaluation.

(v) Poor success record of acquisition. Takeovers benefit the shareholders of the acquired company often more than the acquirer.

(b) Advice with estimates the value of one share if there is no growth in dividend and when there is a constant growth in dividend of 6% per annum for Jinex Inc. Company.

(i) No growth:

Po =2.00/0.15=K13.33 per share

(ii) Constant growth of 6%

Po = (2 x 1.06)/(0.15 – 0.06) = K23.56 per share

SOLUTION FIVE

(a) Discuss how strategic planning affect the productivity of a business.

Strategic planning affects the productivity of a business by:

(1) **Providing Direction:** Ensures all efforts are aligned with the organization's goals.
(2) **Optimizing Resource Allocation:** Allocates resources efficiently to priority areas.
(3) **Enhancing Focus:** Helps employees focus on key tasks that drive success.
(4) **Improving Decision Making:** Provides a framework for making informed, data-driven decisions.
(5) **Monitoring Progress:** Regularly tracks performance to make necessary adjustments.

(b) Discus any two of the three main strategic management elements.

(1) **Strategic Position.** Understanding the organization environment, capabilities and shareholders influence,
(2) **Strategic Choice.** Decisions being made at corporate and business level units.
(3) **Strategic implementation.** Putting into action the strategy adopted by the organization. It includes, structuring, Enabling and change.

END OF SUGGESTED SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA 3.1: ADVANCED FINANCIAL REPORTING

MONDAY 8 DECEMBER 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)

(a) Skyfall Ltd (Skyfall) is a listed entity incorporated in Zambia and is based in Northern province. The functional and presentation currency of Skyfall is the Zambian Kwacha (K). In its goal to extend its markets outside Zambia, the directors of the company decided to acquire a subsidiary in Nigeria. The corporate name of the investee entity is Midea Plc (Midea).

The draft financial statements of Skyfall and its subsidiary, Midea for 2025 financial year are set out below.

Statements of Profit or Loss for the year ended 31 December 2025

	Skyfall	Midea
	K'000	**₦'000**
Revenue	85,850	198,000
Cost of sales	(76,000)	(158,850)
Gross profit	9,850	39,150
Distribution and administrative expenses	(8,800)	(11,700)
Investment income	1,440	-
Profit before tax	2,490	27,450
Income tax expense	(600)	(9,450)
Profit for the year	**1,890**	**18,000**

Statement of Financial Position as at 31 December 2025

	Skyfall	Midea
Assets:	**K'000**	**₦'000**
Non-current assets		
Property, plant and equipment	5,740	9,720
Investment in Midea	1,680	-
	7,420	9,720
Current assets		
Inventories	3,980	16,632

Trade receivables	3,260	9,144
Cash	480	4,032
	7,720	29,808
Total assets	**15,140**	**39,528**

Equity and Liabilities:

Equity

Share capital (K1 for Skyfall/ ₦0.5 for Midea)	236	2,696
Share premium	400	-
Retained Earnings & other reserves	604	28,120
	1,240	
	30,816	
Liabilities		
Non-current liabilities		
10% Loan notes	3,840	3,600
Current liabilities		
Trade payables	10,060	5,112
Total equity and Liabilities	**15,140**	**39,528**

The following information is relevant:

(i) In pursuit of its agenda, Skyfall acquired 4,044,000 of the shares in Midea for K1,680,000 on 31 December 2022 when Midea's retained earnings and other reserves stood at ₦5,752,000. Midea operates as an autonomous subsidiary. Its functional currency is the Nigerian Naira (₦). The fair value of the identifiable net assets of Midea were equivalent to their book values at the acquisition date.

(ii) The nominal value of share capital for Skyfall and Midea are K1 and ₦0.5 respectively.

(iii) Exchange rates moved as follows:

31 December 2022	₦ 4.40 = K1.00
31 December 2023	₦ 4.16 = K1.00
31 December 2024	₦ 4.00 = K1.00
15 May 2025	₦ 3.90 = K1.00
31 December 2025	₦ 3.60 = K1.00
Average for 2025	₦ 3.75 = K1.00

(iv) Midea paid an interim dividend of ₦7,488,000 on 15 May 2025. Skyfall also paid an interim dividend of K1,400,000 on 30 September 2025. No other dividends were paid or declared in 2025.

(v) Other than where indicated, profit or loss items are deemed to accrue evenly over the reporting period.

(vi) Assessment of consolidation goodwill for impairment indicated nil impairment in the consolidated financial statements by 31 December 2025. No goodwill impairment had been recognized in the previous years.

(vii) Group policy is to measure non-controlling interests at fair value at the acquisition date. The fair value of the non-controlling interests in Midea was measured at K540,000 on 31 December 2022.

Required:

(i) Prepare the consolidated statements of profit or loss and other comprehensive income, for the year ended 31 December 2025 for Skyfall Group. (10 marks)

(ii) Prepare the consolidated statement of financial position at 31 December 2025 for Skyfall Group. (25 marks)

(b) On 30 June 2024, Petronics Ltd acquired a 100% interest in Big City Greens Ltd, a public limited company, for a cash consideration of K195 million. Big City Greens' identifiable net assets were fair valued at K160 million. On 30 November 2025, Petronics disposed of 70% of the equity of Big City Greens when its identifiable net assets were K180 million. The sale proceeds were K120 million and the remaining equity interest was fair valued at K65 million. Petronics could still exert significant influence after the disposal of the interest.

Required:

Calculate the *consolidated gain or loss* arising on the disposal of the equity interest in Big City Greens Ltd and explain how the investment in Big City Greens Ltd is accounted for after the disposal of 70% of equity. (5 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt ANY THREE (3) questions.

<u>QUESTION TWO</u>

Pine Co. is a Zambian resident company listed on the Lusaka Securities Exchange. The company offers cleaning services to both government ministries, Government agencies and the private sector. It prepares its financial statements annually to 31 March. The directors are entitled to performance bonus, in addition to directors' emoluments, which is calculated at a rate of 0.5% of the profit for the year. During the year ended 31 March 2024, the company entered into the following contracts with its customers:

Contract with Kalomo Ltd.

On 15 March 2024, Pine signed a contract to provide cleaning services to Kalomo Ltd for a period of six (6) months at an agreed transaction price of K0.4 million per month. The contract commenced on 1 April 2024 but Kalomo Ltd made an advance payment of K0.8 million on 25 March 2024. The Finance Director has asked the accountant to include K0.8 million as revenue in the statement of profit or loss for the year ended 31 March 2024. The Finance Director argues that this accounting treatment is acceptable as the payment has been made in advance for the services that the company provides. He has further indicated that he will not hesitate to charge the accountant for insubordination if his guidance on this issue is not followed.

Contract with Government agency

Pine entered into a contract with a Government agency on 1 April 2023 to provide cleaning services over a period of two (2) years. The total transaction price has been agreed at K6 million. The associated costs to be incurred by Pine on this contract have been estimated at K4.20 million. The contract states that the Government agency will be required to make an initial deposit amounting to 30% of the transaction price at inception. Pine is required to send invoices, reflecting the value of work done, at the end of each year. Pine incurred total costs amounting to K2.20 million during the year ended 31 March 2024. On 28 March 2024, Pine sent an invoice representing the value of work undertaken during the year ended 31 March 2024. Pine has a policy of measuring the value of work undertaken on its contract using the input method of measuring the performance obligations satisfied. The only entry made in the financial statements of Pine is the initial deposit which was recorded as a short-term loan.

Required:

(a) Discuss the ethical issues arising from the contract with Kalomo Ltd, including the actions that you should take to resolve the issues. (7 marks)

(b) Explain the appropriate accounting treatment, with calculations where appropriate, of the contract with Kalomo Ltd in the financial statements of Pine for the year ended 31 March 2024 in accordance with relevant International Financial Reporting Standards (IFRSs). (5 marks)

(c) Explain the appropriate accounting treatment, with calculations where appropriate, of the contract with the government agency in the financial statements of Pine for the year ended 31 March 2024 in accordance with relevant International Financial Reporting Standards. (8 marks)

[Total: 20 Marks]

QUESTION THREE

Shitanda Plc is a Zambian resident company listed on the Lusaka Securities Exchange. The company holds 90% of the issued equity shares of Bream and 60% of the issued equity shares of Tiger, both Zambian resident companies. The directors are seeking advice on the accounting treatment of the following issues in the financial statements for the year ended 30 April 2024:

Issue 1

At 30 April 2024, the Board of Directors of Shitanda approved the plan to sell its 60% holding in Tiger and this plan has been announced to all stakeholders. A potential buyer has been found and negotiations have reached an advanced stage and, as a result, the sale is expected to be completed by 31 July 2024. The Group Accountant wishes to account for Tiger as held for sale and recognise a restructuring provision, including any possible future losses during the period up the date of sale, in the consolidated financial statements for the year ended 30 April 2024.

The Chief Executive Officer is against the idea that Tiger should be accounted for as held for sale arguing that this accounting treatment will adversely affect sales due to bad publicity. The CEO has also indicated that she will not allow this accounting treatment as they have a duty to maximise profits and return for shareholders of Shitanda. She has further indicated that the accountant may be demoted from his position and possibly lose his job if such a provision was to be included in the financial statements.

As at 30 April 2024, the directors expected costs from sale of Tiger to be; redundancy costs for Tiger's employees K40 million, legal expenses K6 million, contracts termination costs K4 million and future trading losses up to the date of sale K22 million. (8 marks)

Issue 2

On 1 March 2024, Shitanda entered into a contract to purchase materials from a foreign company on 31 May 2024 at a cost of $15,000. Shitanda reports in Kwacha (K) and the directors of Shitanda are concerned with the instability of the Zambian Kwacha against the Dollar. On the same date (1 March 2024) the company entered into a forward contract to buy $15,000 on 31 May 2024 at an exchange rate of K27.80 per $1 in order to hedge against any depreciation of the Kwacha.

The following are the spot and forward exchange rates:

Date	Spot rate	Forward rate
1 March 2024	K27.10 per $1	K27.80 per $1
30 April 2024	K27.40 per $1	K28.10 per $1
31 May 2024	K27.90 per $1	K27.90 per $1 (actual)

The forward contract has met the conditions to be accounted for as a hedge in accordance with IFRS 9 – Financial Instruments. The directors have correctly classified the hedge as a cash flow hedge. (8 marks)

Issue 3

Shitanda commenced a new production process for product XEN on 1 November 2023. The company incurred total expenditure amounting to K16 million up to 31 January 2024. This amount is made up of research expenditure amounting to K7 million and development expenditure amounting to K9 million. On 1 February 2024, the directors of Shitanda made an application for the license to produce XEN, and incurred further development costs amounting to K3 million up to 30 April 2024. The project is expected to generate annual cash inflows of K41 million once completed.

As at 30 April 2024, the Directors were still waiting for approval of their application by the relevant authorities. The CEO of Shitanda has suggested that the total costs incurred up to 30 April 2024 be capitalized as an intangible asset in the statement of financial position as at 30 April 2024. (4 marks)

Required:

Advise the directors of Shitanda on the issues raised above stating the appropriate accounting treatment of each in accordance with IFRSs. Your answer should compute the amounts to be reported in the financial statements for the year ended 30 April 2024.

[Total: 20 Marks]

<u>QUESTION FOUR</u>

(a) KANDY Trust Ltd operates a defined benefit scheme which at 31 December 2023 was in deficit by K240 million. Details for the current year are as follows:

	K'million
Current service cost	110
Cash contribution to the scheme	200
Benefits paid in the year	160
Net loss on curtailment	22
Gain on re-measurement	18

The rate of interest applicable to corporate bonds was 5% and 11% at 31 December 2023 and 31 December 2024 respectively. The cash contributions for the scheme have been correctly accounted for in the financial statements for the year ended 31 December 2024. This is the only adjustment that has been made in respect of the scheme.

Required:

Recommend the correct accounting treatment of the above transactions to the Directors of KANDY Trust Ltd in the financial statements for the year ended 31 December 2024, including financial statements extracts in accordance with *IAS 19: Employee Benefits.*

(5 marks)

(b) On 15 December 2010, the Zambia Institute of Chartered Accountants (ZICA) adopted the use of three tier financial reporting framework for Zambia. The aim of the new reporting structure is to provide a simplified, self-contained set of accounting principles for smaller non-listed companies. Kumawa a non-listed company adopted IFRS for SMEs on 1 January 2024. One of the reasons why Kumawa adopted and prepares its financial statements using the SMEs Standard is because of the difficulties involved every time a new IFRS Standard is issued. The directors believe that the practicalities and financial statement implications of regularly implementing new IFRS Standards are overly onerous to an entity the size of Kumawa. However, Kumawa may have to transition to full IFRS Standards if it continues to grow in size.

Required:

(i) Discuss the key practical considerations and financial statement implications that an entity must consider when implementing a new IFRS Standard.

(3 marks)

(ii) Briefly explain the principles outlined in IFRS 1 First Time Adoption of IFRS that must be applied when an entity adopts full IFRS Standards for the first time. (2 marks)

(c) Litumezi prepares financial statements to 31 March each year. On 1 October 2023, Litumezi granted 500 share appreciation rights to 20 senior executives. The rights are redeemable in cash on 30 September 2027 provided the executives remain employed by Litumezi until at least 30 September 2027. On 1 October 2023, Litumezi estimated that two of the 20 executives would leave in the period from 1 October 2023 to 30 September 2027 and this estimate remained unchanged at 31 March 2024.

During the year ended 31 March 2025, one executive left Litumezi and on that date Litumezi estimated that the other 19 executives would remain in employment until 30 September 2027 and so be entitled to the share appreciation rights.

On 1 October 2023, the fair value of a share appreciation right was estimated to be K6. The fair value of a right had increased to K6.20 by 31 March 2024 and to K6.40 by 31 March 2025. You can assume that this transaction was correctly accounted for by Litumezi in its financial statements for the year ended 31 March 2024.

Required:

(i) Explain how share options granted to employees with a future vesting date and subject to vesting conditions should be recognized and measured in the financial statements of the employing entity. (5 marks)

(ii) Briefly explain and show how the above transaction would be reported in the financial statements of Litumezi for the year ended 31 March 2025. (5 marks)

[Total: 20 Marks]

QUESTION FIVE

The BMK Group operates in the farming and fishing industry and has operated a number of wholly owned (100%) subsidiaries for many years. The BMK group has its operations in Kaputa, Luwingu and Mpongwe. Its financial statements for the last two years are shown below.

Consolidated statements of profit or loss for the year ended 30 September.

	2025	**2024**
	K'000	**K'000**
Revenue	47,000	34,250
Cost of Sales	(23,000)	(14,000)
Gross profit	24,000	20,250
Distributions costs	(10,600)	(9,650)
Administrative expenses	(12,800)	(7,700)
Profits from operations	600	2,900
Investment income	-	300
Finance costs	(60)	-
Profit before tax	540	3,200
Taxation	(150)	(960)
Profit for the year	390	2,240
Attributable to:		
Owners of the parent	790	2,240
Non-controlling interest	(400)	-
	390	2,240

Consolidated statements of financial position (extracts) as at 30 September

	2025	**2024**
Current assets	**K'000**	**K'000**
Inventory	3,250	2,285
Trade receivables	8,500	7,800
Bank	305	3,000
Equity		
Share capital	12,500	3,000
Retained earnings	36,750	36,250
Non – controlling interest	255	
Non-current liabilities		
Loan	10,000	-

Additional information:

(1) BMK has become increasingly worried about two major areas in its business environment. First of all, there are concerns that reliance on large supermarkets are putting pressure on cash flow, as the supermarkets demand long payment terms. Secondly, the consistent increases in fuel prices mean that delivering the produce nationally is becoming extremely expensive.

(2) In order to deal with the above worrying concerns, BMK purchased 70% of ABC Ltd on 1 October 2024. This was the first time BMK had purchased a subsidiary without owning 100% of it. ABC Ltd operates two luxury hotels in Chipata, and BMK Ltd purchased ABC Ltd with a view to diversification and to provide a long term solution to the cash flow concerns raised above.

(3) BMK raised finance from multiple sources to finance its activities as it did not have ready finance. Part of this finance came from the disposal of K5.5 million held in investments, making a K2.25 million gain on disposal, which is included in administrative expenses.

(4) ABC Ltd opened a third hotel which is located in Kabwe in March 2025. After poor initial reviews, ABC Ltd appointed a new marketing director in May 2025. As a result of an extensive marketing campaign, online feedback had improved.

(5) The following ratios have been calculated for the year ended 30 September 2024:

Gross profit margin	59.1%
Operating margin	8.5%
Return on capital employed	7.4%
Inventory turnover period	60 days
Receivables collection period	83 days

Required:

(a) Prepare the equivalent ratios for the year ended 30 September 2025. (5 marks)

(b) Analyse the ***financial performance*** and ***cash flow*** of BMK for the year ended 30 September 2025, making specific reference to any concerns or expectations regarding future periods. (15 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

CA 3.1 SUGGESTED SOLUTION

SOLUTION ONE

(a) Consolidated financial statements of Skyfall

(i) Skyfall Group Consolidated Statement of Profit or Loss and Other Comprehensive Income for year ended 31 December 2025

	K'000
Revenue (85,850 + (W3) 52,800)	138,650
Cost of sales (76,000 + (W3) 42,360)	(118,360)
Gross profit	20,290
Distribution and administrative expenses (8,800 + (W3) 3,120)	(11,920)
Profit before tax	8,370
Income tax expense (600 + (W3) 2,520)	(3,120)
Profit for the year	5,250
Other comprehensive income	
Items that may be reclassified to profit or loss:	
Exchange differences on translating foreign operations (W7)	640.60
Total Comprehensive Income for the year	5,890.60
Profit for the year attributable to:	
Owners of the parent (5,250 – 1,200)	4,050
Non-controlling interests ((W3) 4,800 x 25%)	1,200
	5,250
Total comprehensive income attributable to:	
Owners of the parent (5,890.6 – 1,360.2)	4,530.40
Non-controlling interests [((W3) 4,800 + (W7) 640.6) X 25%]	1,360.20
Total comprehensive income	5,890.60

(ii) Skyfall Group Consolidated Statement of Financial Position as at 31 December 2025

	K'000
Assets	
Non-current Assets	

Property, plant and equipment (5,740 + (W2) 2,700)	8,440.00
Goodwill (W4)	366.60
	8,806.60
Current Assets	
Inventories (3,980+ (W2) 4,620)	8,600.00
Trade receivables (3,260 + (W2) 2,540)	5,800.00
Cash at bank and in hand (480 + (W2) 1,120)	1,600.00
	16,000.00
Total Assets	24,806.60
Equity and Liabilities:	
Equity	
Share capital (K1 each)	236.00
Share premium	400.00
Retained earnings and other reserves (W5)	5,634.00
	6,270.00
Non-controlling interest (W6)	2,216.60
	8,486.60
Liabilities	
Non-current liabilities	
10% Loan notes (3,840 +1,000)	4,840.00
Current liabilities	
Trade payables (10,060 + (W2) 1,420)	11,480.00
Total Equity and Liabilities	24,806.60

(b) Petronics Ltd

	K'm
Fair value of consideration received	120
Fair value of equity interest retained	65

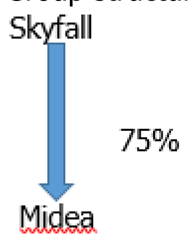
	185
Less:	
Fair value of net assets at the date of disposal	(180)
Goodwill (K195 million – K160 million)	(35)
Loss on disposal	(30)

Commentary/Justification
Petronics Ltd has significant influence over Big City Greens Ltd, after the disposal of 70% of equity. Therefore, there is an associate relationship and Petronics Ltd should apply equity accounting for Big City Greens. Under equity accounting an investment is held at cost plus group share of retained total comprehensive income made after associate status is established, less any impairment losses.

In a case such as this, where a disposal of equity shares has resulted in control being lost but significant influence being retained, deemed cost is the fair value of the retained investment on the disposal date. Therefore, the investment in Big City Greens as an associate is initially measured at fair value of K65m.

The group share of total comprehensive income subsequently earned by Big City Greens is recognised in the group statement of profit or loss and other comprehensive income and increases the carrying amount of the investment.

Workings
(1) Group structure



4,044,000/5,392,000 = 75%

Midea issued its shares @ ₦0.5.
₦2,696,000 issued at ₦0.5.
₦1= 5,392,000 shares

(2) Translation of Midea – statement of financial position

	₦'000	Rate	K'000
Property, plant and equipment	9,720	3.6	2,700
Inventories	16,632	3.6	4,620

Trade receivables	9,144	3.6	2,540
Cash	4,032	3.6	1,120
	39,528		10,980
Share capital	2,696	4.4	612.7
Retained earnings and other reserves:			
pre-acquisition	5,752	4.4	1,307.3
post-acquisition (28,120 – 5,752)	22,368	(balance)	6,640
	30,816		8,560
10% loan notes	3,600	3.6	1,000
Trade payables	5,112	3.6	1,420
	39,528		10,980

(3) Translation of Midea– statement of profit or loss and other comprehensive income

	₦'000	Rate	K'000
Revenue	198,000	3.75	52,800
Cost of sales	(158,850)	3.75	(42,360)
Gross profit	39,150		10,440
Distribution and administrative expenses	(11,700)	3.75	(3,120)
Profit before tax	27,450		7,320
Income tax expense	(9,450)	3.75	(2,520)
Profit for the year	18,000		4,800

(4) Goodwill

	₦'000	Rate	K'000
Consideration transferred (1,680 X 4.4)	7,392		1,680
Non-controlling interests (at FV: 540 X 4.4)	2,376		540
	9,768		2,220
Less net assets at acquisition:			
Share capital	(2,696)	4.4	(613)
Retained earnings and other reserves	(5,752)	4.4	(1,307)
Goodwill at acquisition	1,320		300
Exchange gain 2023 – 2024	-	ß	30
Goodwill at 31 December 2024	1,320	4.0	330
Exchange gain 2025	-	ß	36.6
Goodwill at year end	1,320	3.6	366.6

(5) Retained earnings and other reserves

	K'000
At 31 December 2025	
Skyfall	604
Group share of post-acquisition earnings and other reserves of Midea:	
((W2) 6,640 X 75%)	4,980
Group share of impairment losses to date	(0)
Group share of exchange differences on goodwill ((W4) 30 + 36.6) X 75%)	50

5,634

(6) Non-controlling interests

	K'000
NCI at acquisition (W4)	540
NCI share of post-acquisition earnings and other reserves of Midea ((W2) 6,640 x 25%)	1,660
NCI share of impairment losses to date	(0)
NCI share of exchange differences on goodwill (((W4) 30 + 36.6) X 25%)	16.60
	2,216.60

(7) Exchange differences arising during the year

On translation of net assets of Midea:

K'000		
Closing NA at CR (W2)		8,560
Opening NA @ OR [(30,816 – 18,000 + 7,488)/4.0]		(5,076)
		3,484
Less retained profit as translated ((W3) 4,800 –7,488/3.90)	(2,880)	
		604
On goodwill (W4)		36.60
Total exchange difference		640.6

SOLUTION ONE

(a) Ethical issues

IAS 1 Presentation of Financial Statements requires that an entity must 'present fairly' its financial position, financial performance and cash flows. This means that financial statements should represent faithfully the effects of transactions which is achieved by adhering to International Financial Reporting Standards (IFRSs) when preparing financial statements.

Directors may wish to present the entity's financial statements in a favorable way in order to meet the targets, hence employ creative accounting techniques in order to manipulate the financial position, financial performance and cash flows of the entity. In the case of Pine Co, directors are paid a performance bonus calculated at 0.5% of the company's profit for the year. This might be a motive for manipulation of the company's profits through techniques such as window dressing, which is exactly what the Finance Director is proposing.

The Finance Director's proposal to include the amount of K0.8 million received from Kalomo as an advance payment in respect of the contract commencing 1 April 2024 is against the requirements of IFRS 15 Revenue from Contracts with Customers as the cleaning services have not yet been performed. IFRS 15 states that an entity should recognize revenue to depict the transfer of promised goods or services to customers. This means that revenue should be recognized when or as the performance obligations are satisfied.

The principle of integrity imposes an obligation on the accountant to have commitment not to mislead or deceive. This means that an accountant should not knowingly be associated with financial reports, communications or other information where the accountant believes that the information contains materially false or misleading statements or computations. The principle of professional competence and due care also requires an accountant to maintain professional knowledge and skills and be able to prepare financial statements in accordance with applicable technical and professional standards (IFRSs).

The advance payment received is in connection with the contract commencing 1 April 2024 and the company has not transferred the promised services yet. Therefore, recognizing K0.8 million as revenue in the financial statements for the year ended 31 March 2024 will overstate the profit and this will be in breach of the requirements of IAS 1 and IFRS 15 and the principle of integrity as outlined by the International Ethical Standards Board for Accountants (IESBA).

There is danger that the accountant is being pressured to follow the Finance Director's incorrect accounting treatment of the advance payment received from Kalomo Ltd. This gives rise to intimidation threat as the accountant is being pressured to act in the interest of the director.
The accountant should try to persuade the Finance Director not to proceed with the proposed accounting treatment as this will be against the requirements of IFRS 15. If the director still insists on this accounting treatment, the accountant should report this to the entity's independent auditors and to Pine Co's internal ethics committee.

(b) Contract with Kalomo Ltd.
The contract with Kalomo Ltd should be accounted for in accordance with IFRS 15 Revenue from Contracts with Customers. IFRS 15 states that an entity should recognize revenue to depict the transfer of promised goods or services to customers. This means that revenue is recognized when (or as) performance obligation is satisfied.

Revenue from the contract with Kalomo Ltd should not be recognized in the financial statements of the company (Pine Co) for the year ended 31 March 2024 as the contract relates to the financial year beginning 1 April 2024.

The entity should, therefore, **no**t recognize the advance payment receipt from Kalomo Ltd amounting to K0.8 million as revenue, the entity is not entitled to this amount because the related performance obligations have not been satisfied. The director's proposal therefore is against the principle of IFRS 15.

As at 31 March 2024, the K0.8 million received relates to performance obligations to be satisfied in the future and therefore it should be recognized as deferred income (a current liability) in the statement of financial position.

The K0.8 million should therefore be recorded as:

Debit Bank	K0.8 million
Credit Deferred income (current liability)	K0.8 million

(c) Contract with government agency

This contract also meets the criteria to be classified as a contract with a customer in accordance with IFRS 15.
IFRS 15 requires revenue to be recognized when (or as) performance obligations are satisfied. A performance obligation is satisfied when the entity transfers a promised good or service. An entity transfers control of a good or service over time and, therefore, satisfies a performance obligation and recognizes revenue over time if the customer simultaneously receives and consumes the benefits provided by the entity's performance as the entity performs.

IFRS 15 states that for each performance obligation satisfied over time, revenue should be recognized by measuring progress towards complete satisfaction of that performance obligation. Pine Co will have to satisfy the performance obligations over time in connection with the contract with the government agency. Therefore, revenue should be recognized by measuring progress towards complete satisfaction of the performance obligations.

Pine Co has a policy of measuring progress towards complete satisfaction of the performance obligations using the input method (costs incurred to date divided by total costs to completion multiplied by 100).

The progress towards complete satisfaction of the performance obligations for the year ended 31 March 2024 is:
(Costs incurred to date/Total contract costs to completion) x 100
(K2.20 million/K4.20 million) x 100 = 52.38%

The revenue to be recognized in the statement of profit or loss for the year ended 31 March 2024 will amount to: K6 million x 52.38% = K3.14 million.

At inception, Pine Co received an advance payment amounting to K1.80 million (K6 million x 30%). This amount was treated as deferred income which should be offset with the revenue for the year based on the performance obligations satisfied.

Pine Co should therefore recognize a receivable amounting to K1.34 million (K3.14 million – K1.80) as a current asset in the statement of financial position as at 31 March 2024.

In summary the amounts to be recognized are as follows:
Statement of profit or loss extract for the year ended 31 March 2024

K'million

Revenue (K6 million x 52.38%)	3.14
Cost of sales	(2.20)
Profit	0.94

Statement of financial position extract as at 31 March 2024

	K'million
Contract costs incurred to date	2.20
Profit recognized to date	0.94
Amounts received from customer to date	(1.80)
Contract asset/receivable	1.34

SOLUTION THREE

Issue 1

Accounting for a disposal as held for sale need to meet the conditions for classification as held for sale in accordance with IFRS 5 – Non-current Assets Held for Sale and Discontinued Operations.

IFRS 5 states that an asset or disposal group should only be classified as held for sale if the asset is available for immediate sale in its present condition, and if the sale is highly probable. A sale is highly probable if management is committed to a plan to sell the asset, an active programme to locate the buyer has been initiated, the asset is being actively marketed at a reasonable price in relation to its current fair value, the sale is expected to be completed within 12 months from the date of classification, and if it is unlikely that the plan to sale the asset will change significantly.

The disposal of Tiger appears to meet the criteria to be classified as held for sale as management is committed to a plan to sale by approving the plan and communicating it with all stakeholders.

A potential buyer has already been found and negotiations have reached an advanced stage. This means that the sale is highly probable and it is expected to be completed by 31 July 2024 which is within 12 months from date of classification.

The transaction therefore meets the criteria to be accounted for as held for sale and discontinued operation in the financial statements. The CEO is wrong for suggesting that the transaction should not be accounted for as held for sale and provide for a restructuring.

The company has a constructive obligation as the disposal has been communicated to the stakeholders including employees. This means that all directly attributable costs of the restructuring (sale) should be recognized as a provision. This should, however, exclude the ongoing operating costs of Tiger.

The provision should include legal expenses, contract termination costs and redundancy costs. However, future trading losses during the period up to the date of sale should not be included in the provision as there is no present obligation on the part of the business.

The following are the costs that should be provided for in the consolidated financial statements for the year ended 30 April 2024:

	K'million
Redundancy costs	40
Legal expenses	6
Contracts termination costs	4
	50

Issue 2

Shitanda entered into the forward contract to hedge against the volatility of future cash outflows to purchase materials. Therefore, the forward contract should be accounted for as a cash flow hedge, since all the criteria for hedge accounting has been met, in accordance with IFRS 9 – Financial Instruments.

IFRS 9 requires the hedging instrument (forward contract in this case) to be measured at fair value with the gain or loss, relating to an effective portion of the hedging instrument, recognized in other comprehensive income. Any gain or loss relating to the ineffective portion should be recognized in profit or loss.

At 1 March 2024, no entries are required as the value of the forward contract is zero. The existence of a cash flow hedge should, however, be disclosed in accordance with IFRS 7 Financial Instruments: Disclosures.

The forward contract should be valued as follows as at 30 April 2024:

	K
Value of the contract at 30 April 2024 ($15,000 x K28.10)	421,500
value of contract at 1 March 2024 ($15,000 x K27.80)	(417,000)
Gain on forward contract (FCC asset)	4,500

A gain of K4,500 as at 30 April 2024 should be compared to the movement in value of the materials using spot rates.

	K
Cost of materials at 30 April 2024 ($15,000 x K27.40)	411,000
Cost of materials at 1 March 2024 ($15,000 x K27.10)	(406,500)
Increase in cost of materials	4,500

The hedge is fully effective as a gain on a forward contract (hedging instrument) fully offset the increase in the cost of the hedged item (unrecognized materials). Therefore, a gain of K4,500 should be accounted for as follows in the financial statements for the year ended 30 April 2024:

Debit Financial Asset (Forward contract in SOPF)	K4,500
Credit Other components of equity (OCI)	K4,500

The gain will initially be reported in OCI (items reclassified in PL) and subsequently reclassified in PL by crediting against the cost of the plant upon its acquisition.

Issue 3

IAS 38 requires all research expenditure to be charged to profit or loss as an expense. This means that the research expenditure of K7 million should be written off to the statement of profit or loss as an expense.

IAS 38 states that development expenditure should only be capitalized as an intangible asset if it meets the recognition criteria. The criteria include establishing the technical and commercial feasibility of the project, ability to use the project once completed, probable to generate economic benefits, and if the cost can be measured with sufficient reliability among others.

As at 30 April 2024, it was not yet probable that the project will generate the expected annual cash inflow of K41 million as the company was still waiting for the approval of their application to produce XEN.

This means that the criteria set out in IAS 38 for recognition of intangible assets was not met and therefore, all the costs incurred up to 30 April 2024 in connection with this project should all be charged to statement of profit or loss as an expense.

The total amount to be charged as an expense should be: K7 million + K9 million + K3 million = K19 million.

<u>SOLUTION FOUR</u>

(a) Pension scheme

The defined benefit scheme for the year should have been recorded as follows:

	K million
Net obligation at 31 December 2023	240
Cash contribution into the scheme	(200)
Net finance cost for the year (K240 million x 5%)	12
Current service cost	110
Loss on curtailment	22

Gain on re-measurement	(18)
Net liability at 31 December 2024	166

The benefits paid do not affect the net liability for the year. Since only the cash contributions have been recorded for the year, the net obligation should be increased by K126 million (K166 million – K40 million). K144 million should be expensed to profit or loss being the service cost component (current and curtailment) plus the interest charge. K18 million should be credited to other components of equity being the gain on re-measurement.

Statement of profit or loss and other comprehensive income extract for the year ended (Extract)

	K million
Defined benefit scheme (K110 + K12 + K22)	(144)
Other comprehensive Income	
Items that will not be reclassified to profit or loss:	
Gain on re- measurement	18

Statement of financial position extract

	K million
Equity and liability:	
Equity	
OCE – re-measurement component	18
Liabilities	
Non-current liabilities:	
Net obligation (240-200)	40
Increase in defined benefit obligation	126
Adjusted net obligation as at 31st December 2024	166

(b) Implementing a new IFRS

(i) Practical considerations When implementing a new accounting standard, an entity should prepare an impact assessment and project plan. The entity may need to spend money on training staff, or on updating or replacing its systems. New processes and controls may need to be developed and documented.

New accounting standards will most likely contain new recognition, measurement and disclosure requirements. If the impact of these is not communicated, then investors' assessments of how management has discharged its stewardship responsibilities may change and this could affect their investment decisions. As such, management should communicate the impact of a new standard to investors and other stakeholders – particularly if it will result in lower profits or increased liabilities. Banking agreements often specify maximum debt levels or financial ratios based on figures reported in the financial statements. New financial reporting requirements can affect those ratios, causing potential covenant breaches.

Dividends could be affected. Many jurisdictions have regulations, which restrict the amount which can be paid out in dividends. This restriction is normally based on accounting profits. The impact of adopting a new IFRS Standard should be communicated to analysts. Some governments use information prepared under IFRS standards for statistical and economic planning purposes. Competitive advantage could be lost if a new financial reporting standard requires extensive disclosures. Bonus schemes may need to be re-assessed because the new standard could affect the calculation of performance-related pay.

Financial statement implications Where there is the introduction of a new accounting standard, the financial statements will need to reflect the new recognition, measurement and disclosure requirements which, in turn, will mean that entities will need to consider the requirements of IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors.

IAS 8 contains a requirement that changes in accounting policies are fully applied retrospectively unless there are specific transitional provisions contained in the new IFRS Standard being implemented. IAS 1 Presentation of Financial Statements requires a third statement of financial position to be presented if the entity retrospectively applies an accounting policy, restates items, or reclassifies items, and those adjustments had a material effect on the information in the statement of financial position at the beginning of the comparative period. IAS 33 Earnings per Share requires basic and diluted EPS to be adjusted for the impacts of adjustments resulting from changes in accounting policies accounted for retrospectively and IAS 8 requires the disclosure of the amount of any such adjustments. A change in an accounting standard can change the carrying amounts of assets and liabilities, which will have deferred tax consequences.

(ii) First time adoption of IFRS Standards IFRS 1 First-time Adoption of IFRS says that an entity must produce an opening statement of financial position in accordance with IFRS Standards as at the date of transition. The date of transition is the beginning of the earliest period for which an entity presents full comparative information under IFRS Standards in its first financial statements produced using IFRS Standards. At the date of transition, the entity must:

(1) Recognise all assets and liabilities required by IFRS Standards.
(2) Derecognise assets and liabilities not permitted by IFRS Standards.
(3) Reclassify assets, liabilities and equity in accordance with IFRS Standards.
(4) Measure assets and liabilities in accordance with IFRS Standards. Gains or losses arising on the adoption of IFRS Standards at the date of transition should be recognised directly in retained earnings.

(c) Share based payment transactions

(i) IFRS 2 – Share-based Payment – requires that the total estimated cost of granting share options to employees be recognised over the vesting period. The total estimated cost should be charged as a remuneration expense and credited to equity (IFRS 2 does not specify where in equity the credit should be made).

The cumulative charge at the end of each period should be a proportion of the total estimated cost. The proportion should be based on the proportion of the total vesting period which has accrued at the reporting date. The incremental charge is a remuneration expense for any period and should be the difference between the cumulative charge at the end of the period and the cumulative charge at the start of the period.

The charge should be based on the fair value of the option at the grant date. This continues to be the case throughout the vesting period – subsequent changes in the fair value of the option are not adjusted for.

Where the vesting conditions are non-market conditions (i.e. not directly related to any change in the entity's share price), then the cumulative cost at each year end should be estimated based on the expected number of options which will vest at the vesting date.

(ii) If an entity grants cash-based share appreciation rights to employees rather than share options, then the basic principle of recognising the total estimated cost over the vesting period taking account of relevant vesting conditions is the same. However, since any ultimate payment will be made in cash, the credit entry to account for the remuneration expense is to liabilities rather than equity. Also, since any ultimate payment to the holders of share appreciation rights will normally be based on their fair value either at the vesting date or the payment date, subsequent changes in the fair value of the rights cannot be ignored. Measurement of the remuneration expense will be based on the fair value of the share appreciation rights at each reporting date.

The expected fair value of the total liability at 31 March 2025 will be K60,800 (500 x 19 x K6·40). The amount which will be shown as a liability in the statement of financial position at 31 March 2025 will be the proportion based on the period elapsed since the rights were granted compared with the total vesting period. In this case that proportion is 18/48 months.

Therefore, the closing liability will be K22,800 (K60,800 x 18/48). This will be shown as a non-current liability. The liability which would have been recognised in the statement of financial position at 31 March 2024 would have been K6,975 (500 x 18 x K6·20 x 6/48). Litumezi would show a remuneration expense in profit or loss of K15,825 (K22,800 – K6,975) in respect of the share appreciation rights for the year ended 31 March 2025.

SOLUTION FIVE

(a) Ratios for the pure group

Ratios	**Formula**	**Calculations**	**2025**	**2024**
Gross profit	Gross profit/sales x 100	(24,000/47,000) x 100	51.1%	59.1%
Operating margin	Profits from operations/sales x 100	(600/47,000) x 100	1.3%	8.5%
Return on capital	Profits from operations/total shareholders fund + long-term loan x 100	(600/(49,505 + 10,000) x 100	1.0%	7.4%
Inventory turnover Period	Inventory/cost of sales x 365 days	(3,250/23,000) x 365	52 days	60 days
Receivables Collection period	Receivables/sales x 365 days	(8,500/47,000) x 365	66 days	83 days

(b) Analysis of the performance and cash flow of the BMK group Performance

Revenue and expenses have all increased during the year. Some of this could be due to the acquisition of ABC Ltd in the year, but without ABC's individual financial statements it is difficult to see how much this has contributed. ABC Ltd has been controlled since 1 October 2024 so has contributed full year's results for the year to September 2025 which would not have been included in the year to 30 September 2024.

It is also important to recognize that the new Hotel was only opened in March 2025, so a full year's revenue has not yet been generated by this. Whereas revenue has increased significantly by 37.2%, it can be seen that higher expenses have meant that the BMK Ltd group has made less profit than in the previous period. For example, cost of sales increased astronomically by 64.3% from the previous year.

The gross profit margin has fallen in the year from 59.1% to 51.1% representing a decrease of 13.5%. This could be attributable to the increased pressure on prices from supermarkets or difficult trading conditions, but could also be as a result of the addition of ABC Ltd into the group.

It may be that the hotel industry generates much lower margins than the farming industry, or it may be that ABC Ltd itself generates lower margins. It may also be that the poor reputation associated with the new hotel resulted in the need to offer lower room rates to attract new customers or to bring customers back.

Following the improvement in feedback as indicated in the question, this will improve profits in future periods. The improvement in feedback should lead to increased future bookings, so it may be that the new hotel generates a significantly improved return in future years. The operating margin has also deteriorated in the year. It is also important to note that there is a significant one-off K 2.25 million gain on disposal in relation to the sale of investments during the year. Without this exceptional item, BMK Ltd group would have made a worrying loss from operations of K1.65 million (2,250 – 600). Further analysis of this loss is due to a significant increase in the administrative expenses, which would be K15.05 million excluding the K 2.25 million profit on disposal.

There could have been significant expenses associated with the set-up of the new hotel during the year, which again are unlikely to be repeated in future periods unless ABC Ltd plans on opening another hotel in the near future. The increased marketing expenses will also have had a significant impact on the profit, though it is unclear whether this is something that may need to be repeated or maintained in future periods.

There could be many costs associated with the new hotel which will be recurring, such as the increase in staff numbers, and the running costs of the hotel. The new marketing director is likely to have demanded a significant salary, as he or she was brought in specifically to address a problem with the hotel's reputation.

The distribution costs have increased marginal by 9.8% during the year. This could suggest that there has been a decline in the underlying farming business, as fuel costs have risen significantly. It could also mean that the hotel business has extremely low distribution costs, which is likely.

Whereas the BMK Ltd group has managed to reduce its exposure to fuel prices through the purchase of ABC Ltd not dependent on distribution, it is questionable how wise this has been. ABC Ltd appears to have lower margins and will still incur significant costs in terms of cooling and lighting, which may rise in a similar manner to fuel costs. The return on capital employed has also deteriorated in the year from 7.4% to 1%, which is expected due to the reduced operating profits. Removing the gain on disposal of the investments would make the BMK group loss-making, meaning that it would make a negative return on capital employed.

It thus appears that ABC Ltd is a loss-making entity, as the non-controlling share of the group's profit is negative. As ABC Ltd is the only non-100% controlled subsidiary, the non-controlling interest will relate solely to ABC's performance.

This may also suggest that there is goodwill impairment following the purchase of ABC Ltd. This could have arisen from the poor reputation associated with the new hotel. If the non-controlling interest is valued at fair value, 30% of the impairment would be allocated to the non-controlling interest's share.

In addition to the reduced operating profits, the capital employed by the BMK Ltd group has increased significantly. A total of K9.5 million of new shares have been issued during the year, probably to fund the purchase of ABC Ltd. There has also been a K10 million long-term loan contracted, although it is possible that ABC Ltd already had this loan and this has resulted from the consolidation of ABC's assets and liabilities.

The sale of investments and share issue and potentially the contracted loan suggest that the BMK Ltd group paid a very high price for ABC Ltd. This may not have been wise if ABC Ltd has low margins, or is loss making. If ABC Ltd owns the hotel premises, then this may have explained the high price as the land is likely to hold its value, even if ABC performs poorly as demonstrated.

Cash flow position

The cash balance has fallen to K 0.3 million as at 30 September 2025. It is important to note that the BMK Ltd group has raised significant funds during the year through a share issue, sale of investments and the potential receipt of a long-term loan. This means that significant amount of the cash raised is likely to have been spent on the purchase of ABC Ltd and the new hotel.

However, the decrease in receivable collection period will have a positive effect on the cash flow of the BMK Ltd group. As a hotel will largely be cash based rather than offering credit, this will aid the cash flow of the BMK Ltd group. This means that the purchase of ABC Ltd may help offset its problems caused in the farming sector with the longer terms demanded by the supermarkets.

Another positive sign on cash flow is the reduction in the inventory turnover period. This will be as a result of the fact that ABC Ltd will not carry much inventory, as this is likely to relate to food and drink served in the hotels.

Conclusion

The success of the BMK Ltd group in the current year is difficult to judge; it has been a transitional year. There are concerns over the performance of ABC Ltd, although there are reasons to believe this may improve in the instant future periods. For a more meaningful comparison, individual financial statements of companies within the BMK Ltd group would need to be accessed.

END OF SUGGESTED SOLUTIONS

Zambia Institute of Chartered Accountants

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA3.2 ADVANCED AUDIT AND ASSURANCE

THURSDAY 11 DECEMBER 2025

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

INSTRUCTIONS TO CANDIDATES

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

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

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

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

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

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

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

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

8. Present legible and tidy work.

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

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

SECTION A

This question is compulsory and must be attempted.

<u>QUESTION ONE – (COMPULSORY)</u>

Your firm of Chartered Accountants is auditor of the financial statements of Quality Motor Co's financial statements for the year ended 31 December 2024.

You have been assigned Engagement Partner for the audit of the financial statements of Quality Motor Co. for the year ended 31 December 2024. Your firm has experienced and less experienced staff at Audit Senior and Audit Manager levels. The majority of the Audit Assistants are new with little experience in auditing.

In the process of familiarizing yourself with this client, you reviewed the current and permanent audit files. The engagement letter contains a disclaimer against being sued for professional negligence by the company or any other party for work done during the cause of the audit. The clause specifically states that the firm shall only be liable for professional negligence to the extent of a maximum of 10% of the audit fee charged. In order to reduce the risk of being sued, the firm introduced quality control measures at the firm level by appointing a Quality Control champion responsible for quality control. The firm is considering introducing quality control measures at the individual audit level and wishes to compile a manual which will incorporate these measures. The Quality Control champion has requested for suggestions of issues that should be included in the Quality Control manual being developed.

Quality Motor Co. has been manufacturing motor vehicles for over twenty (20) years and the company has noted a significant drop in sales revenue in the last three (3) years. The major reason for the drop in demand of motor vehicles manufactured by Quality Motor Co are the new regulations that have been put in place to charge a levy on all motor vehicles that use fossil fuel resulting in a significant increase in prices. During the current year, the government removed excise duty on the importation of electric operated motor vehicles and this has seen an increase in the demand and importation of electric vehicles.

Quality Motor Co. sells its motor vehicles through licensed car dealers on consignment basis. Vehicles sent on consignment are treated as inventory and only recognized as sales when sold to third parties. The company gives a warranty of two (2) years within which the company undertakes to repair any manufacturing defects. At the end of each financial year, a warranty provision is recognized in the financial statements.

During the previous year's inventory count, there was a noted increase in spares that were considered slow moving and obsolete. The bulk of these spares were for a model of vehicle that the company stopped manufacturing five (5) years ago and this inventory is carried at cost in the statement of financial position. The company is facing supply chain challenges from the supplier of starter motors used in the manufacturing of motor vehicles. The company has a running contract with the supplier and sourcing the starter motors from other sources would be considered breach of contract and possible legal action against the company.

Quality Motor Co. recently underwent an inspection by regulators regarding the quality of motor vehicles manufactured. This was done following a series of accidents that were experienced by car owners involving a particular brand of motor vehicle. The investigations revealed malfunctioning of the suspension of the particular model and the company was instructed to recall that particular model. This did not go well with the company because it has implications on the ability of the company as a going concern in view of reduced sales.

The audit of the financial statements of Quality Motor Co. is nearing completion and the Audit Manager has given you the current audit file for your review and determination of the audit opinion.

The following matters should be considered in arriving at an appropriate opinion:

(1) A warranty provision of K1.3 million was recognized in the financial statements for the year ended 31 December 2024. The actual amount spent on repairs arising from the warranty is K2.1 million. This does not include the cost of rectifying the faulty suspension of the recalled model of motor vehicle.

(2) The majority of the vehicles recalled have been received and management has declined to provide for the cost of rectification in the financial statements. The estimated cost of rectification is K5 million and this amount is considered material and negatively impacts the reported profit for the year.

(3) The Audit Manager is of the view that the significant reduction in sales arising from the phasing out of fossil fuel driven vehicles and the cost of rectifying the faulty suspension there exists a material uncertainty with regards the ability of the company as a going concern. The company prepared its financial statements for the year ended 31 December 2024 on a going concern basis and there is no disclosure made regarding the recalled model of motor vehicle. Management argued that there is no need to disclose this matter because the company has agreed to repair the defects on all the recalled vehicles.

Additional information:

(1) An institutional investor bought 10% shares in Quality Motor Co. relying on the audited financial statements for the year 2021. The audited financial statements highlighted a significant growth in the company. The institutional investor is concerned that no dividends have been paid out in the last two (2) years and when the investor engaged management of Quality Motor Co. it became clear that the company was facing liquidity and going concern challenges.

(2) The share prices significantly dropped on the securities exchange and prospects of improvement are small. The institutional investor instructed its lawyers to take legal action against your firm for professional negligence arguing that the firm should have foreseen the going concern challenges that the company faced. The lawyers have since written to your firm claiming damages arising from the drop in shares prices arising from professional negligence in the conduct of audits in the past.

(3) Total revenue in the draft financial statements is K58 million and total assets amount to K75 million.

The audit report is expected to be signed in the next few days and you have asked the Audit Manager to make an appointment with management of Quality Motor Co for a meeting to discuss the outcome of the audit and the proposed opinion.

Required:

(a) (i) Comment on the disclaimer against legal liability in the engagement letter by the audit firm. (2 marks)

(ii) Discuss the litigation by the institutional investor for professional negligence against the audit firm. (4 marks)

(b) Briefly describe the matters of consideration regarding quality control in the audit of the financial statements of Quality Motor Co. considering *continuance of the audit engagement*, *assignment of the engagements team* and *engagement performance*. (6 marks)

(c) (i) Discuss the possible use of an auditor's expert in the audit of the Financial statements of Quality Motor Co and explain the responsibility for work done by the expert. (4 marks)

(ii) Explain how business risk may have implications for the statutory audit. (2 marks)

(iii) Describe five (5) audit risks that should be considered at the planning stage of the audit of the financial statements of Quick Motor Co. and explain suitable responses to the audit risks. (10 marks)

(d) (i) Explain the justification for discussing the audit report and opinion with the management of Quality Motor Co. before signing and issuing the audit report. (2 marks)

(ii) Suggest a suitable audit opinion considering the outcomes of the matters discussed with management of Quality Motor Co. Clearly explain any assumptions you make in arriving at the suggested opinion. (6 marks)

(iii) Draft relevant extracts of the audit report considering the opinion suggested in (d) (ii) above. (4 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt any THREE (3) questions.

QUESTION TWO

Wall Mart Ltd is a large supermarket involved in the trading of various groceries and other household goods. Your firm of Chartered Accountants was recently appointed auditor of Wall Mart Ltd and the audit of the financial statements for the year ended 31 December 2024 has commenced.

You are Audit Senior on the audit of the financial statements of Wall Mart Ltd for the current year audit. This will be your first time that you will lead an audit team to audit a company in this sector. Muna, who worked for your firm as Audit Manager on assignments in the trading industry, recently resigned from his position and joined Wall Mart Ltd. as Chief Accountant and he is responsible for all accounting matters at Wall Mart Ltd. The Engagement Partner on this audit informed you that you should not have any problems leading the audit team in view of that fact that the Chief Accountant who is a former employee of your firm will be of great help and will provide the required information without any trouble.

The draft financial statements of Wall Mart Ltd contain an amount of K1.5 million which relates to obsolete and near expiring inventory in the warehouse. During the review of the inventory valuation working papers prepared after the year-end inventory count, you established that the total value of slow and obsolete inventory at the period end was K2.7 million. A review of the previous three (3) years financial statements shows that the provision for obsolete inventory has remained the same at K1.5 million. When you enquired on why the provisions is not adjusted to take into account the obsolete inventory values at the year end, you were informed that it was company policy to make a provision of obsolete inventory of 2% of the total inventory at the period end. You requested management to increase the provision for obsolete inventory to K2.7 million and management declined the request. You informed those charged with governance of the disagreement on increasing the provision and you are awaiting a response before finalizing the audit.

During the year, Wall Mart Ltd purchased refrigeration equipment at a total cost of K1.2 million and this amount is included in the Property, Plant and Equipment balance in the draft statement of financial position. The depreciation policy of the company is that full depreciation is provided for in the year of purchase of tangible non-current assets and no depreciation is charged in the year of disposal.

Wall Mart Ltd conducts promotions toward the end of the year to boost sales and the budget for promotions in the current year is K1.2 million. Lucky customers win gift vouchers daily in the month of December and the first two (2) weeks of the following year. Winners are randomly selected using till rolls placed in a box and winners are contacted using the contact details written on the till roll. Muna instructed the Shop Manager to give each of the audit team members on the audit team gift vouchers. The total value of the vouchers given to the audit team members amounted to K76,000.

Required:

(a) Discuss three (3) ethical matters that should be considered in the audit of the financial statements of Wall Mart Ltd. for the year ended 31 December 2024 and suggest suitable safeguards that should be applied. (6 marks)

(b) (i) Explain four (4) financial statement assertions for the refrigeration equipment purchased during the year. (2 marks)

(ii) For each financial statement assertion explained in (b) (i) above, suggest an appropriate substantive audit procedure that should be performed. (8 marks)

(c) Describe the impact on the audit report and opinion if the matter relating to the provision for obsolete inventory remains unresolved at the end of the audit.

(4 marks)

[Total: 20 Marks]

<u>QUESTION THREE</u>

(a) You work for Victoria & Co. a firm of Chartered Accountants and you are responsible for new client acceptance. Your firm is a five (5) partner firm and has offices in Lusaka, Kitwe and Ndola. The firm has charge-out rates used in determining the audit fee that will be charged to clients. Your client base includes clients in the retail trading industry and currently is auditor of a large chain of retail shops in the country.

After considering all matters that require to be considered before deciding to submit a bid for the offer of audit services, you responded to an advertisement by Quality Hardware Stores for expression of interests from audit firms for the offer of audit services. Quality Hardware Stores was recently established in the country with retail shops in Lusaka, Ndola and Kitwe. The year-end of Quality Hardware Stores is 31 December and it wishes that the auditor to be appointed should conduct the annual audit of financial statements. The company holds significant quantities of inventory at all its three (3) shops and it requires that the auditors attend the annual inventory count at all the three (3) shops.

The reporting timetable of the company is very tight and the parent company in South Africa requires that audited financial statements of all its subsidiaries are finalized by the end of the second month of the following financial year.

Required:

(i) Explain four (4) matters that you considered before deciding to bid for the offer of audit services to Quality Hardware Stores. (4 marks)

(ii) Describe four (4) matters that should be included in the audit proposal in response to the advertisement by Quality Hardware Stores. (8 marks)

(b) You are Audit Manager in Ruth & Co. a firm of Chartered Accountants and you are in charge of the audit of the financial statements of Mubuyu Ltd for the year ended 31 March 2025.

You are reviewing the audit working papers and you establish that management of Mubuyu Ltd made an assessment of the going concern ability of the company at the period end. The assessment was conducted for eight (8) months in the future and management concluded that the company was not a going concern and did not have the ability to pay its debts in the near future.

The financial statements of Mubuyu Ltd were prepared in accordance with the applicable financial reporting framework and were prepared on the alternative break up basis on account of the fact that the company was not a going concern. The Audit Senior in charge of the audit recommended that an unmodified audit opinion should be issued because sufficient appropriate audit evidence was obtained.

You are concerned that the evaluation of the ability of the company as a going concern was for only eight (8) months contrary to the requirement by the applicable accounting standard. You requested the Audit Senior to request management of Mubuyu Ltd to extend its assessment for a further four (4) months. It was noted that there were inappropriate assumptions made during the first assessment for eight (8) months. The conclusion by management after the second assessment was that the company was a going concern.

The Audit Senior performed further audit procedures on the second evaluation and agreed with management's assessment that the company was a going concern He, however, observed that there existed material uncertainty with regards the ability of the company as a going concern. This arose on account of the poor liquidity position of the company and the fact that a long term loan obtained would be maturing in the following six (6) months and the prospects of the company being able to repay the loan were low. Management obtained a comfort letter from the parent company committing to bail out the company in the event that it fails to repay the loan. Management of Mubuyu Ltd made the necessary disclosures in the note to the financial statements regarding the existence of material uncertainty.

Required:

(i) Evaluate, with justification, the recommendation by the Audit Senior that an unmodified audit opinion should be issued assuming Mubuyu Ltd is not a going concern as earlier evaluated by management. (4 marks)

(ii) Suggest, with justification, the action that management should take on account of the fact that the Mubuyu Ltd has been assessed as a going concern and suggest a suitable opinion. (4 marks)

[Total: 20 Marks]

QUESTION FOUR

(a) Uranium Mining is a mining company that has been involved in the mining of uranium for many years. The company is located in Mumbwa near a river from which it draws water used in the processing of uranium.

The refining of uranium ore requires the use of acid and other chemicals and the refining process results in the production of highly toxic and hazardous substances. The mine does not have the facilities required to safely dispose of the hazardous substances. The only facility that can be used to dispose of these toxic and hazardous substances is based in South Africa and the company previously canned these substances in sealed drums and transported them to South Africa for disposal. The mining license issued, provides that the hazardous substances should be transported to South Africa for disposal and the penalty for incorrect disposal is the withdrawal of the mining license.

You have been assigned to the audit of the financial statements of Uranium Mining for the year ended 31 March 2025. In planning the audit and gaining an understanding of the entity, you established, through review of the previous audit working papers, that the company incurred a significant amount on packaging and transporting the hazardous substances to South Africa annually. You observed that in the previous and current years there is no expenditure for the transportation of these substances. You are concerned that the company may have disposed of hazardous substance contrary to the regulation to export them to South Africa.

You held a pre audit meeting with the audit team at which you emphasized on the need to maintain professional skepticism during the audit. Emphasis was with regards compliance with laws and regulations because the mining of uranium is subject to strict regulations.

During the substantive audit stage when testing expenses, one (1) of the Audit Assistants came across a payment to lawyers. There was no clear explanation to support the payment. You later established that the payment was for inspectors of the mining regulators as gratification for not reporting disposal of toxic and hazardous substances in the river from which the company draws water used in refining.

Required:

(i) Discuss the expected response of the audit team on account of the information established during the audit regarding the disposal of hazardous substances and the payment to inspectors. (2 marks)

(ii) Discuss the reporting requirements concerning identified non-compliance with laws and regulations during the audit of the financial statements of Uranium Mining. (4 marks)

(b) Precision Engineering Plc. is a company in the manufacturing industry. The company manufactures a range of household electronic equipment. The company's main customers are wholesale and retail companies that buy equipment on credit. The company gives two (2) years warranty on all its electronic equipment within which period the equipment is repaired or replaced.

In the year 2024, the company experienced a decline in revenue arising from reduced sales. The general economic situation in the country and the depreciation of the local currency has seen prices increasing resulting in less people having disposable income. It was noted that there are supply chain challenges that the company is facing in that a supplier of a key component is not meeting the monthly requirements of Precision Engineering Plc. and that the bulk of the items returned are on account of defective components supplied by this one (1) supplier.

Recently, the Quality Standards Board introduced strict quality standards so that any electronic equipment not meeting the set quality standards would not be allowed on the market. Following an inspection by the standards board, a popular and fast moving brand of kitchen utensil failed to meet the quality standard and the company stopped production of this brand. A large foreign competitor in the supply of home electronic equipment came into the market and imported cheap high quality equipment from the Far East.

Two (2) years ago, Precision Engineering Plc. established the position of Quality Control Manager. Among other responsibilities, the Quality Control Manager heads a cross sectorial team comprising managers from various functions of the company responsible for risk assessment in the company. The team assesses the risks that the company faces and makes recommendations to management to put in place corrective measures.

The shareholders of Precision Engineering Plc. are concerned about the poor performance of the company signified by a significant reduction in the share prices in the last few months. The shareholders demanded that management should review its risk assessment systems so that they can identify business risks and respond to them early. Furthermore, the shareholders recommended that management should extend the scope of the audit of the financial statements to include assurance on the risk assessment systems of the company.

Required:

(i) Distinguish, using the information in the scenario, the risk based and business risk approaches in the audit of the financial statements of Precision Engineering Plc. (4 marks)

(ii) Describe four (4) business risks in the operations of Precision Engineering Plc. and explain the financial statements implication for each of the business risks. (6 marks)

(iii) Discuss the benefit of assurance on the risk assessment processes of Precision Engineering Plc. (4 marks)

[Total: 20 Marks]

QUESTION FIVE

You are Audit Senior on the audit of the financial statements of Mubanga Plc for the year ended 31 December 2024. The reporting timetable for the audit of the financial statements of Mubanga Plc. is tight and the Audit Manager has suggested that you use the directional testing approach to the audit which is more efficient in testing for both overstatement and understatement of assets/expenses and liabilities/income.

Mubanga Plc. is a company in the construction industry and is involved in road construction. During the current year, the company acquired new earthmoving equipment. The company conducted an impairment review of the old ageing equipment and the results of the impairment exercise are contained in the financial statements.

The audit work has been completed and the audit working paper file has been given to the Audit Manager for review and finalization of the audit report.

During the audit, a number of matters arose which were resolved as follows:

(1) There was a disagreement with management on the recognition of revenue for a contract for the construction of a road. This related to the work certified during the year. This matter was communicated to Those Charged with Governance that intervened and the adjustments that were necessary were made and the matter was resolved.

(2) This is the first year that your firm of Chartered Accountants audited the financial statements of Mubanga Plc. The audit team obtained sufficient appropriate audit evidence to support the opinion to be reached. The prior year audit opinion was modified by the auditors issuing a qualified opinion.

(3) The financial reporting framework for the preparation of the financial statements in the industry that Mubanga Plc. operates in is not appropriate. Efforts by the audit team to get management to use the appropriate financial reporting framework failed. Management argued that the accounting framework used was prescribed by the country's laws.

(4) Further, the company adopted a new International Financial Reporting Standard which has an adverse effect on the financial statements if applied early before the effective date of the standard.

During the review of the audit working paper files, the Audit Manager noted that some equipment that should have been tested for impairment was not tested. Management of Mubanga Plc. was requested to conduct an impairment review of this equipment and the results of the review have been incorporated in the financial statements. The Audit Manager requested you to draw up an audit plan describing the audit procedures that should be conducted on the impairment review that has been conducted.

The working papers show a total of K38,000 as uncorrected misstatements at the end of the audit. The materiality level set at the planning stage of the audit is K40,000.

Required:

(a) Describe the use of directional testing in the audit of the financial statements of Mubanga Plc. for the year ended 31 March 2025. (4 marks)

(b) (i) Explain the audit risk regarding assets tested for impairment in the audit of the financial statements of Mubanga Plc. (2 marks)

(ii) Describe four (4) substantive audit procedures that should be performed on the impairment of tangible non-current assets. (6 marks)

(c) (i) Explain the action that should be taken regarding the uncorrected misstatements in the audit of the financial statements of Mubanga Plc. (2 marks)

(ii) Describe how matters (1) to (4) in the scenario would be reported in the audit report for the financial statements of Mubanga Plc. for the year ended 31 March 2025. (6 marks)

[Total: 20 Marks]

END OF PAPER

CA 3.2ADVANCED AUDIT AND ASSURANCE

SUGGESTED SOLUTIONS

<u>SOLUTION ONE</u>

(a) (i) Comment on the disclaimer in the engagement letter:

The disclaimer in the engagement letter that the auditors shall not be held liable to the company for professional negligence in conducting audits is not valid. The auditors owe a professional duty of care to the company with whom they have a contract and as such the company could sue regardless of the terms of the agreement.

Disclaimers are valid in certain instances such as when the professional prepares reports on a business for the purpose of being submitted to a potential purchaser when they could be included. Although disclaimers may be included in this case, their effect will depend on the decision of the court.

(ii) Advise on intended litigation against the auditors:

For a litigant to succeed and be awarded damages for professional negligence by the auditors, there are three (3) criteria that should be proved as follows:

- That the auditors owe a duty of care to the litigant
- That the auditors were in breach of the duty of care and
- That the litigant suffered loss as a result of the breach of the duty of care.

Case law gives guidance in relation to individual situations. Regarding the institutional investor intending to sue the auditors, in the first instance they will be treated as individual shareholders and hence third parties.

The judgment held in the Caparo v Dickson case states that the auditors do not owe third parties who rely on audited financial statements to make investment decisions any duty of care.

To succeed in the intended litigation the following is the position with regards the institutional investor;

- Must prove to the court that the auditors owed it a duty of care
- Must prove that the auditors were negligent in the performance of their work and
- That the institutional investor suffered loss as a result of the breach of duty of care.

(b) Quality control measures that should be introduced by the firm:

ISA 220 *Quality control for an audit of financial statements* gives guidance on the quality control measures that should be observed during the conduct of audits.

Continuance of client relationship:

The auditing standard on quality control at the individual level requires an assessment by the firm whether it wishes to continue with the engagement with the audit clients. The firm is required to assess whether or not the engagement should be continued.

In the case at hand the firm should reassess the continuation of the engagement and in doing so will consider any ethical issues that may exist for which no safeguards are available. The disagreement with management over the accounting for uncorrected misstatements and the basis of the preparation of the financial statements is a matter of concern and brings into question the integrity of management.

Assignment of engagement team:
The Engagement Partner is responsible for the audit and the assignment of audit team members to undertake the audit.
Staff should be assigned to the audit of the financial statements of Quality Motor Co based on skills and competences possessed by the different levels of staff. This will ensure that an audit meeting the required quality will be performed.

Engagement performance:
In terms of the performance of the audit of the financial statements of Quality Motor Co, the following should be in place considering the requirements for engagement performance:

Direction:
The Engagement Partner for the audit of the financial statements of Quality Motor Co has overall responsibility for directing the audit. Some responsibility is delegated to the Audit Manager and the Audit Senior who are more involved in the conduct of the audit work.
Direction will include matters such as:
- Holding a pre audit meeting with all the audit team members where pertinent issues concerning the audit will be discussed.
- Discussion of the risks and the potential problems that may arise.
- The responsibilities of the various staff in the audit team and
- The objectives of the work to be conducted.

Supervision:
Overall responsibility for supervision of the audit work lies with the Engagement Partner. The Audit Manager and the Audit Senior has delegated authority to supervise the audit work.
Supervision includes matters relating to:
- Monitoring the progress of the work being done.
- Continuously monitoring the capabilities and competences of individual audit team members.
- Dealing with any issues that arise during the audit and responding to them as appropriate.
- Identifying matter that may require consultation with more senior staff in the engagement team and the firm.

Review:
All the work performed should be reviewed by senior audit team members and any observations made should be addressed and cleared. Reviews will consider the adequacy of the evidence obtained and considering whether the work has been done in accordance with auditing standards.

Consultation:

There should be clear guidance to all the audit team members on how difficult matters that may arise during the audit will be dealt with. Such matters should be resolved in accordance with the firm's policy on dispute resolution.

(c) (i) Need for third party expertise in the audit of the financial statements of Quality Motor Co.

Quality Motor Co is in the manufacturing industry and it is likely that at the period end the company will have significant amounts of work in progress. It is not likely that any of the audit team members is able to confirm the valuation of work in progress.

In view of the fact that work in progress may be material and has an impact on determination of profit, it may be necessary for the audit team to engage an auditor's expert to carry out an independent valuation of the work in progress. Unless the audit team can obtain satisfaction with the valuation of work in progress by management there is a need to engage an expert,

Responsibility for the work by the auditor's expert:
The auiditos take responsibility for the work carried out by the auditor's expert in obtaining audit evidence.

(ii) Implications of business risk to the statutory audit:
Business risks are those that may make an organization to meet its objectives. There are some business risks that have implications regarding the going concern ability of the company.

There are also business risks that could result in the company being subjected to penalties such as non-compliance with laws and regulations. Noncompliance with laws and regulations has an impact on the statutory audit in that provisions in the financial statements may be misstated.

The going concern business risk has implications in that it determined the basis of preparing the financial statements. If a company is not a going concern, the financial statements should be prepared on the alternative break up basis and not the historical cost basis.

(iii) Audit risks in the audit of the financial statements of Quick Motor Co.:

	Audit risks	**Suitable response**

1	There is risk that the company will be sued and may be liable to pay damages. In the case of court cases not determined by the period end, the provisions in the financial statements may be understated.	The audit team should be alert throughout the audit for any litigation against the company. Discuss the adequacy of any provision made at the period end with management.
2	The influx of imported electric cars that have resulted in reduced demand for fossil fuel driven cars has going concern implications for the company. The basis of preparing the financial statements on a going concern basis may not be appropriate.	The audit team should evaluate the impact of reduced sales on the company and review the management's assessment of the company as a going concern.
3	Cars sales of cars on consignment could result in the company recognizing revenue before the cars are sold to third parties. This could result in an overstatement of the revenue of the company.	Review the conditions of consignment sales and trace transfers of cars to revenue to identify cars that should be included in closing stock rather than sales.
4	The giving of warranty on motor cars sold requires that provisions be made at the period end for any repairs to cars sold prior to the period end. There is an audit risk that the provisions may be understated at the period end.	Review management assumptions for any provisions made for reasonableness. Compare the actual expenditure on repairs subsequent to the period with the provision made at the period end.
5	The slow moving spares could be inappropriately valued. Since the majority of the spares may not be sold due to the phasing out of certain models of cars, the net realizable value of such spares may be lower than cost. There is a risk that closing inventory of these spares may be overstated having been valued at cost rather than the net realizable value.	Review the inventory count instructions with regards identification of slow and obsolete inventory. Confirm slow moving items have been valued at net realizable value which is likely to be lower than cost.
6	The company may not make a sufficient provision for the repair of recalled motor vehicles which may result in a misstatement of the financial statements.	Discuss with management the basis of any provision made for repairs of recalled vehicles. Consider any management bias in making this accounting estimate on account of the likely impact on profitability.

(d) (i) Justification for discussing the audit report prior to issuing report:

Discussing the proposed audit opinion with management avoids any disagreements that may arise concerning the opinion. It gives an opportunity to management to explain the matters that may have led to the particular proposed opinion.

(ii) Suggested opinion:

The following matters should be taken into consideration in arriving at an appropriate audit opinion.

There are two (2) misstatements that have not been corrected at the end of the audit as follows:

Understatement of warranty provision	K0.8 million
No provision for the rectification of recalled vehicles	K5.0 million
Total uncorrected misstatements	K5.8 million

The total of the uncorrected misstatements is 10% of revenue and 8% of total assets and is considered material to the financial statements. The company profitability is key in terms of users of financial statements making economic and investment decisions. If management declines the request to amend the financial statements on account of the uncorrected misstatements, the audit opinion will be modified on account of the fact that the amount is material and the misstatement pervasive to users of the financial statements.

If amendments are made regarding the uncorrected misstatements, further audit procedures will require to be performed and the misstatements may not lead to the modification of the opinion.

The other important factor that should be considered in this case is the going concern ability of the company. In view of the fact that the conclusion of the auditors is that the company is not a going concern, the basis of the preparation of the financial statements should have been the alternative break up basis. In view that management has declined to prepare the financial statements on the alternative basis, the audit opinion issued should be the adverse opinion. This will be the case even if corrections are made regarding the uncorrected misstatements. The reasons for issuing an adverse opinion will be given in the basis for adverse opinion paragraph.

(iii) Extracts of the audit report considering opinion in (d) (ii) above:

Adverse opinion

We have obtained sufficient appropriate audit evidence and in our opinion the financial statements of Quick Motor Co do not show a true and fair view (or do not fairly present the financial position of Quick Motor Co and its financial performance)

Basis for adverse opinion

We conducted our audit according to the international standards on auditing. We obtained sufficient appropriate evidence which forms the basis of our opinion. The evidence obtained show that Quick Motor Co is not a going concern and the financial statements should have been prepared on the alternative basis. The financial statements contained herein have been prepared on the going concern basis which is inappropriate and the basis upon which we have issued an adverse opinion.

SOLUTION TWO

(a) Ethical matters in the audit of the financial statements of Wall Mart Ltd:

	(i) Ethical matter	(ii) Safeguard
1	Fist time audit for firm in a client in the trading industry. There is a risk that the audit team members may lack the necessary skills and competences to conduct an audit of the financial statements of a client in this industry leading to increased detection risk.	The need for the application of professional skepticism should be emphasized to the audit team members and there will be need for close supervision of the work being done.
2	Chief Accountant of Wall Mart Ltd who formally worked for the audit firm. This will give rise to familiarity and intimidation threats to the audit team. Muna held a senior position in the firm and will now be subject to audit by audit staff members who do not possess the skills and competences required to conduct an audit in this industry. Further, this creates an intimidation threat on account of the position Muna held in the firm.	The firm should consider assigning more experienced staff to the audit and also introduce unpredictability in the work that will be performed.
3	Gift vouchers to audit team members give rise to a self-interest threat and is likely to impact the objectivity of the audit team members.	The audit team members should decline the offer of gift vouchers. This more so the case considering that the audit team members were not selected from the box of till rolls and the Shop Manager was instructed to give the gift vouchers to the audit team members. The total sum of K76 000 cannot be considered immaterial.

(b) Financial statement assertions and audit procedures for refrigeration equipment acquired:

	(i) Financial statement assertions	(ii) Substantive audit procedure
1	Classification – that the cost of acquiring the refrigeration equipment has been correctly classified between revenue and capital expenditure.	- Inspect the supporting documents for the refrigeration equipment purchased and ensure that the costs have been correctly classified.
2	Accuracy & valuation – a claim that the figure for acquired refrigeration equipment has been accurately determined and the	- Inspect the supplier invoices and confirm the cost amount and confirm by recalculation the depreciation charge for the year.

	amount recognized is in accordance with the relevant accounting standards.	
3	Rights and ownership – That the refrigeration equipment belongs to Wall Mart Ltd and is therefore correctly recognized in the statement of financial position.	- Inspect the supporting documents for the purchase of the equipment and confirm that they are in the name of Wall Mart Ltd and also that the equipment is used by the company.
4	Existence – This is the claim that the purchased equipment is for the entity and exists at the period end.	For a sample of refrigeration equipment purchased request to physically inspect the equipment and that it relates to the purchased equipment.

(c) Impact of provision for obsolete inventory on audit report:
If the provision remains at K1.5 million, this means that the total value of inventory for the year is K75 million. The understatement of the provision for obsolescence by K1.2 million has a direct effect on the reported profit in that the inventory is overstated by this amount resulting in an understatement of the cost of sales.

The overstatement of the profit figure arising from the overstatement of closing inventory at K1.2 million is 4.8% of the reported profit of K25 million. Profitability of a company in relied upon by users of financial statements in making financial and investment decisions.
If the provision is not amended to increase it to K2.7 million this will impact the audit opinion and since it is a material figure and impacts on the profit figure used in making investment decisions, the amount is considered pervasive to the financial statements. The appropriate audit opinion in this case is an adverse audit opinion and this should be brought to the attention of management and those charged with governance.
If on the other hand the misstatement of inventory is considered material but not pervasive to the financial statements, a qualified opinion will be appropriate.

SOLUTION THREE

(a) (i) Matters to consider before deciding to bid for the offer of audit services to Quality
Hardware Stores:

(1) The availability of the necessary resources to be able to undertake the audit. This will include the human and financial resources and it would appear that the firm has the human resource in view of the fact that it has three (3) offices in the country and could increase its staff base if necessary.
(2) The availability of staff with the skills and competences to be able to conduct a quality audit in retail industry that Quality Hardware Stores is in.
(3) The firm will require ensuring that there are no ethical matters that would cause it not to accept appointment as auditors. Suitable safeguards will be require to be put in place if there are any ethical concerns.
(4) The integrity of management of Quality Hardware Stores and if management is not known by the firm obtaining refrence would be required.

(ii) Matters to include in audit proposal:

(1) The nature and size of the Victoria & co and the fact that it has offices in Lusaka, Kitwe and Ndola which will make it easy for the firm to offer audit services.
(2) The qualifications of the senior key staff of the firm and brief details of the experience that they possess in the audit of companies in the same industry that Quality Hardware Stores is involved in.
(3) An indication of the audit fee and how it has been determined.
(4) Brief details of how the firm will meet the needs of Quality Hardware Stores including being able to conclude the audit within the timeframe determined by the parent company in South Africa.

(b) (i) Evaluation of recommended unmodified opinion:

The factors that will be considered in arriving at an appropriate audit opinion assuming that Mubuyu Ltd is nor a going concern are twofold as follows:

- Whether sufficient appropriate audit evidence was obtained by the audit team. In this case, the audit team obtained sufficient audit evidence and there were no concerns that would cause a modified opinion to be issued.
- The appropriateness of the basis for the preparation of the financial statements. In view of the fact that it was concluded that the company was not a going concern, the alternative break up basis is appropriate which is the basis of accounting that was followed.

The recommendation of the Audit Senior to issue an unmodified audit opinion is correct on account of the above two (2) factors.

(ii) Management action and form of opinion with material uncertainty:

On account of the fact that after a second assessment of the ability of the company as a going concern it was concluded that the company was a going concern, management will require to restate the financial statements and prepare them on the going concern basis.

The audit opinion that will be appropriate in this case depends on the audit team obtaining sufficient appropriate audit evidence and there being no matter of concern that would cause concern and modifying of the audit opinion. In this case, the audit team obtained sufficient appropriate audit evidence.

There is, however, is material uncertainty with regards the ability of Mubuyu Ltd as a going concern. This will impact the form of opinion that will be issued and the matter of concern is whether or not adequate disclosure has been made in the financial statements by management regarding the existence of material uncertainty. In this case, management made the necessary disclosures about the existence of material uncertainty in the financial statements.

The appropriate audit opinion is an unmodified opinion. The auditors will require to include in a separate paragraph *Material uncertainty with regards going concern* in the audit report in which reference will be made to the note in the financial statements made by management.

SOLUTION FOUR

(a) (i) Response to available information by the audit team:

The audit team should establish whether indeed there has been non-compliance with laws and regulations.

The suspected non-compliance should be communicated to senior audit team and firm staff so that further investigations should be conducted to establish whether there was non-compliance with the laws and regulations applicable in the mining of uranium. More details will require to be obtained regarding the payment to lawyers to establish the purpose of the payment. Discussions between the audit team and those charged with governance should be made but care should be taken to ensure that any evidence that may be required may be destroyed.

The audit team may need to disclose this matter to the attention of the regulators but in doing so the ethical principles of confidentiality should be considered.

(ii) Reporting requirements for non-compliance with laws and regulations:
If it is established that there has been non-compliance with laws and regulations by Uranium Mining, the audit team should report as following:

To senior audit team members – due to the seriousness of the matter and the impact that non-compliance has to the continuity of the company, it should be brought to the attention of senior audit team members. The firm may wish to obtain legal advice in dealing with this matter.

To management of Uranium Mining – The audit team should discuss the matter with the management of Uranium Mining and come to agreement on any non-compliance with the laws regarding the disposals of the toxic and hazardous substances. The audit team should obtain management response regarding the non com0liance with laws and regulations.

To those charged with governance of Uranium Mining – the matter should be discussed with those charged with governance and obtain their response to the alleged non com0pliance with the laws and regulations. The impact of the non-compliance on the financial statements should be explained and a request that necessary provisions in the financial statements should be made.

To the shareholders – The non-compliance with laws and regulation can impact the audit opinion reached. If the matter has implications on the ability of Uranium Mining as a going concern, it may have an impact on the basis of the preparation of the financial statements. An appropriate opinion will need to be reached based on the appropriateness of the basis of preparing the financial statements and the obtaining of sufficient appropriate evidence by the audit team.

To the regulators. In view of the fact that the matter is of a criminal nature there is need for the firm to consider reporting it to the regulators of mining activities. Reporting this matter will not be in breach of the fundamental principle of confidentiality.

(b) (i) Distinction between risk and business based approaches to the audit:

Risk based approach – This is the approach to audit is the one commonly used by auditors in conducting audits. Under this approach the auditors assess the audit risks that exist in a client company and focus the audit efforts to risky areas. The focus is to concentrate in areas that are likely to cause the financial statements to be misstated in order to reduce the risk that undetected misstatements could not be detected.

Business risk approach – Under this approach the auditors consider the business risks identified by management. This is in consideration of the business risks of management and the risks identified are related to what could go wrong at the financial statement assertion level. Under this method, it is recognized that most of the misstatements that could be faced arise from business risks identified.

(ii) Business risks in the audit of the financial statements of Precision Engineering Plc.

	Business risk in Precision Engineering	Financial statement implication
1	Precision Engineering Plc. is a listed company which is required to follow listing rules. Noncompliance with the rules could result in penalties and other punitive rules per guidelines.	In the extreme case the non-compliance with laws has an impact on the ability of Precision Engineering Pl casa going concern. Further, in the case of penalties, provisions may be understated.
2	The poor general economic situation in the country will impact the level of demand of the products of Precision Engineering Plc. This may also impact the ability of the customers that buy goods on credit delaying payments and bring into doubt the collectability of the receivables.	The business risks explained here could impact the receivables figure which may be overstated and also the poor economic situation could have going concern implications for the company.
3	The supply chain problems of a component supplier failing to meet the requirements of Precision Engineering Plc. and the poor standard of the company resulting in increased returns could result in customers switching suppliers and could lead to reduced sales which	The shortage of components could result in going concern problems for the company unless it is able to get supplies from an alternative source. Further there are implications on warranty provisions as a result of the poor components.

	will impact the liquidity of the company.	
4	The entry into the market by a high competitor selling quality electronic equipment at a lower cost could result in reduced revenue for Precision Engineering Plc. which could lead to reduced sales volumes resulting in lower margins and the company failing to meet its fixed costs.	This will have going concern implications for Precision Engineering Plc. impacting the basis of the preparation of the financial statements.

(iii) Benefits of assurance on risk assessment processes.

	Beneficiary	**Benefit**
1	Employees	A company that has strong risk management systems will give confidence to the employees that there are strong prospects that the company will continue assuring the employees with jobs that they need for their livelihood.
2	Shareholders	That their investment is secure and they will continue to receive dividends. Further, the shareholders will benefit in that the risks that the company enters into are in line with the risk appetite of the shareholders.
3	Potential investors	They will get assurance that the company considers risk important and will respond to the identified risks appropriately and that their investment is safe.
4	Lenders	In making lending decisions the lenders will wish to know how Precision Engineering Plc. manages and responds to risks that the company faces. The lender will consider favorably a company that has strong risk management systems because this reduces the prospects of the company failing resulting in lenders not being able to be repaid.

SOLUTION FIVE

(a) Use of directional testing in the audit of the financial statements of Mubanga Plc.:
Transactions and balances in the financial statements of Mubanga Plc. require to be tested for both over an understatement. Audit procedures require to be done to test for over and understatement of the figure.

The principle of directional testing takes advantage of the double entry book keeping principles in that for every debit there is a corresponding credit of the same amount. To achieve the audit objective it is possible to save time in terms of testing for over and understatement of figures. Using this approach, the auditors directly test assets and expanses for overstatement. By so doing, they test the corresponding credits for overstatement as well. On the other hand, income and liabilities are primarily tested for understatement resulting in testing the corresponding debits for understatement.

The result of this approach is that:

- Assets and expenses are tested for both over and understatement, directly tested for overstatement and indirectly tested for understatement through the testing of income and liabilities for understatement.
- Income and liabilities are tested directly for understatement and indirectly for overstatement through the test of assets/expenses.

(b) (i) Audit risks regarding assets tested for impairment:
The audit risk with regards the assets tested for impairment after the review of the audit working papers is that the impairment may not have been conducted in accordance with the provisions of IAS 36 Impairment of Assets which could result in the misstatement of the assets concerned.

The misstatement could happen through wrong computation of the impairment losses arising from the determination of the value in use arising from the subjectivity in determining the fair values.

(ii) Substantive audit procedures for tangible non-current assets originally not tested
for impairment:

1. Obtain the management's computations of the impairment of the assets that were initially excluded from impairment.
2. Review the impairment computations for arithmetical accuracy.
3. Obtain the computations of value in use by management.
4. Re-perform the calculations of value in use for arithmetical accuracy.
5. Review the determination of fair values used in the calculation of value in use and test for reasonableness and possible management bias.
6. Compare the discount rate used in the computation against published market rates and that it reflected the expected return by the market.

(c) (i) Action to take in view of uncorrected misstatements:
The accumulated uncorrected misstatements during the audit of the financial statements of Mubanga Plc. amount to K1.2 million against a performance materiality level of K1.0 million set at the planning stage of the audit.

Although the uncorrected misstatements fall below the performance materiality level, there is concern that if the uncorrected misstatements were extrapolated to the whole of the financial statements, the amount would exceed the materiality level and cause the financial statements to be misstated.

In view of the above, the audit team should request management to amend the financial statements considering the uncorrected misstatements. If management agrees to the request to amend the financial statements, audit procedures will require to be performed on the amendments. If on the other hand management declines the request to amend the financial statements, the audit team will consider the impact this would have on the opinion and may consider modifying the audit opinion.

(ii) Matters in the audit and the impact on the audit report:

(1) Disagreement on revenue recognition:
This is a matter that was resolved and communicated to those charged with governance in accordance with the provisions of ISA 260 *Communication with those charged with governance*. The figures in the financial statements were corrected and the matter was resolved.

If the auditors wish to bring this matter to the attention of the users of the financial statements and consider the matter to be significant, they could include this in the Key Audit Matters paragraph.

(2) Audit of prior year financial statements of Mubanga Plc.:
The fact that the prior year financial statements of Mubanga Plc. were audited by different auditors were audited by different auditors may be reported in the audit report in the other matter paragraph of the report. The auditors may wish to bring this to the attention of the users of the financial statements.

The current year audit opinion may only be modified on account of the previous year modification of the opinion is the matter that cased the modification of the opinion is still relevant and impacts the current year financial statements. If the matter does not impact the current year financial statements or has been corrected, it will not have any impact on the opinion for the current year audit.

(3) Basis for the preparation of the financial statements:

END OF SUGGESTED SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA 3.4: ADVANCED TAXATION

THURSDAY 11 DECEMBER 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 7 of the question paper.

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

Taxation Table

Income Tax

Standard personal income tax rates

Income band	Taxable amount	Rate
K1 to K61,200	first K61,200	0%
K61,201 to K85,200	next K24,000	20%
K85,201 to K110,400	next K25,200	30%
Over K110,400		37%

Income from farming for individuals

K1 to K61,200	first K61,200	0%
Over K61,200		10%

Company Income Tax rates

On income from manufacturing and other	30%
On income from farming and agro-processing	10%
On income from mineral processing	30%
On income from mining operations	30%

Mineral Royalty

Mineral Royalty on Copper

Price range per tonne	Taxable amount	Rate
Less than US$4,000 per tonne	First US$3,999	4.0%
US$4,000 or more but less than US$5,000 per tonne	Next US$1,000	6.5%
US$5,000 or more but less than US$7,000 per tonne	Next US$2,000	8.5%
US$7,000 or more per tonne	Balance	10.0%

Mineral Royalty on other minerals

Type of mineral	Mineral Royalty Rate
Cobalt and vanadium	8% on norm value
Base metals (other than copper, cobalt and vanadium)	5% on norm value
Energy and industrial minerals	5% on gross value
Gemstones	6% on gross value
Precious metals	6% on norm value

Capital allowances

Implements, plant and machinery and commercial vehicles:

Wear and tear allowance –	Standard wear and tear allowance	25%
	Wear and tear allowance if used in manufacturing and leasing	50%
	Wear and tear allowance if used in farming and agro-processing	100%
	Wear and tear allowance if used in Mining and Mineral processing	20%

Non-commercial vehicles

Wear and tear allowance	20%

Industrial buildings:

Wear and tear allowance	5%
Initial allowance	10%
Investment allowance	10%

Low cost housing **(Cost up to K100,000)**

Wear and tear allowance	10%
Initial allowance	10%

Commercial buildings:

Wear and tear allowance	2%

Farming allowances

Development allowance	10%
Farm works allowance	100%
Farm improvement allowance	100%

Presumptive Taxes

Turnover Tax

Annual turnover	
First K12,000	0%
K12,001 to K5,000,000	5%

Tax on rental income

Annual Rental income band	**Taxable amount**	
K1 to K12,000	First K12,000	0%
K12,001 to K800,000	Next K788,000	4%
Above K800,000		16%

Presumptive Tax for transporters

Seating capacity	**Tax per annum**	**Tax per quarter**
	K	K
Less than 12 passengers and taxis	1,296	324
From 12 to 17 passengers	2,592	648
From 18 to 21 passengers	5,184	1,296
From 22 to 35 passengers	7,776	1,944
From 36 to 49 passengers	10,368	2,592
From 50 to 63 passengers	12,960	3,240
From 64 passengers and over	15,552	3,888

Property Transfer Tax

On the realised value of land (including buildings, structures or improvements thereon)	8%
On the realised value of shares	8%
On the realised value of intellectual property	8%
On the realised value of a mining right for an exploration license	8%
On the realised value of a mining right for a mining licence	10%
On the realised value tax on realised value of a mineral processing licence	10%

Value Added Tax

Registration threshold	K800,000
Standard Value Added Tax Rate (on VAT exclusive turnover)	16%

Customs and Excise duties on used motor vehicles

	Aged 2 to 5 years		Aged over 5 years	
Motor vehicles for the transport of ten or more persons, including the driver	**Customs duty**	**Excise duty**	**Customs duty**	**Excise duty**
	K	K	K	K
Sitting capacity of 10 but not exceeding 14 persons including the driver	20,090	25,112	10,045	12,556
Sitting capacity exceeding 14 but not exceeding 32 persons	43,984	0	15,639	0
Sitting capacity of 33 but not exceeding 44 persons	97,742	0	21,992	0
Sitting capacity exceeding 44 persons	122,177	0	48,871	0

	Aged 2 to 5 years		Aged over 5 years	
Motor cars and other motor vehicles principally designed for the transport of persons including station wagons and racing cars	**Customs duty**	**Excise duty**	**Customs duty**	**Excise duty**
	K	K	K	K
Sedans				
Cylinder capacity not exceeding 1000 cc	14,113	12,231	8,065	6,989
Cylinder capacity exceeding 1000 cc but not exceeding 1500 cc	18,145	15,726	9,678	8,387
Cylinder capacity exceeding 1500 cc but not exceeding 2500 cc	18,695	24,304	9,518	12,373
Cylinder capacity exceeding 2500 cc but not exceeding 3000 cc	20,395	26,514	11,897	15,466
Cylinder capacity exceeding 3000 cc	25,494	33,142	13,597	17,676
Hatchbacks				
Cylinder capacity not exceeding 1000 cc	12,097	10,484	8,065	6,989
Cylinder capacity exceeding 1000 cc but not exceeding 1500 cc	16,129	13,979	9,678	8,387
Cylinder capacity exceeding 1500 cc but not exceeding 2500 cc	16,996	22,095	9,518	12,373
Cylinder capacity exceeding 2500 cc but not exceeding 3000 cc	18,695	24,304	11,897	15,466
Cylinder capacity exceeding 3000 cc	22,095	28,723	13,597	17,676

Station wagons				
Cylinder capacity not exceeding 1000 cc	14,113	12,231	8,065	6,989
Cylinder capacity exceeding 1000 cc but not exceeding 1500 cc	18,144	15,725	9,678	8,387
Cylinder capacity exceeding 1500 cc but not exceeding 2500 cc	18,695	24,304	10,198	13,256
Cylinder capacity exceeding 2500 cc but not exceeding 3000 cc	20,395	26,514	11,897	15,466
Cylinder capacity exceeding 3000 cc	25,494	33,142	13,597	17,676
SUVs				
Cylinder capacity not exceeding 1000 cc	17,598	15,252	10,559	9,151
Cylinder capacity exceeding 1000 cc but not exceeding 1500 cc	20,463	17,735	12,278	10,641
Cylinder capacity exceeding 1500 cc but not exceeding 2500 cc	23,794	30,933	14,277	18,560
Cylinder capacity exceeding 2500 cc but not exceeding 3000 cc	27,193	35,351	17,540	22,802
Cylinder capacity exceeding 3000 cc	32,292	41,980	20,395	26,514

	Aged 2 to 5 years		**Aged over 5 years**	
Motor vehicles for the transport of goods	**Customs duty**	**Excise duty**	**Customs duty**	**Excise duty**
	K	K	K	K
Single cab				
GVW exceeding 1.0 tonne but not exceeding 1.5 tonnes	24,777	10,737	9,911	4,295
GVW exceeding 1.5 tonnes but not exceeding 3.0 tonnes	29,732	12,884	17,344	7,516
GVW exceeding 3.0 tonnes but not exceeding 5.0 tonnes	34,687	15,031	19,821	8,589
Double cabs				
GVW not exceeding 3 tonnes	34,687	15,031	27,254	11,810
GVW exceeding 3.0 tonnes but not exceeding 5.0 tonnes	38,156	16,534	29,980	12,991
Panel vans				
GVW not exceeding 1.0 tonne	15,089	6,539	8,622	3,736
GVW exceeding 1.0 tonne but not exceeding 1.5 tonnes	17,344	7,516	9,911	4,295
GVW exceeding 1.5 tonnes but not exceeding 3.0 tonnes	19,821	8,589	17,344	7,516
GVW exceeding 3.0 tonnes but not exceeding 5.0 tonnes	24,777	10,737	19,821	8,589

Trucks

GVW up to 2 tonnes	15,715	12,048	7,246	5,556
GVW exceeding 2.0 tonnes but not exceeding 5.0 tonnes	17,461	13,387	8,731	6,694
GVW exceeding 5.0 tonnes but not exceeding 10.0 tonnes	27,938	21,419	10,477	8,032
GVW exceeding 10.0 tonnes but not exceeding 20.0 tonnes	34,923	26,774	13,271	10,174
GVW exceeding 20 tonnes	58,645	0	21,992	0

NB: Import VAT is added to the sum of VDP, customs duty and excise duty. It is determined at the standard rate of 16%

Surtax

On all motor vehicles aged more than five years from year of manufacture K2,000

Customs and Excise on New Motor vehicles

Duty rates on:

1. **Motor cars and other motor vehicles (including station wagons) principally designed for the transport of less than ten persons, including the driver:**

   Customs Duty:

Percentage of Value for Duty Purposes	30%
Minimum Specific Customs Duty	K6,000

   Excise Duty:

Percentage of Value for Duty Purposes for Excise Duty Purposes	
Cylinder capacity of 1500 cc and less	20%
Cylinder Capacity of more than 1500 cc	30%

2. **Pick-ups and trucks/lorries with gross weight not exceeding 20 tones:**

   Customs Duty

Percentage of Value for Duty Purposes	15%
Minimum specific Customs Duty	K6,000

   Excise Duty:

Percentage of Value for Duty Purposes for Excise Duty Purposes	10%

3. **Buses/coaches for the transport of more than ten persons**

   Customs Duty:

Percentage of Value for Duty Purposes	15%
Minimum Specific Customs Duty	K6,000

   Excise Duty:

Percentage of Value for Duty Purposes for Excise Duty Purposes	
Seating Capacity of 16 persons and less	25%
Seating Capacity of 16 persons and more	0%

4. **Trucks/lorries with gross weight exceeding 20 tonnes**

Customs Duty:	
Percentage of Value for Duty Purposes	15%
Excise Duty:	
Percentage of Value for Duty Purposes for Excise Duty Purposes	0%

SECTION A

This question is compulsory and must be attempted.

<u>QUESTION ONE – COMPULSORY</u>

For the purposes of this question, you should assume that today's date is 20 December 2024

You are employed in a Tax practice. You have been provided with the following information relating to Alinani Sinyangwe, who is seeking tax advice from your firm.

Alinani Sinyangwe has been in business for many years running a medium sized manufacturing business as a sole trader under the name Sinyangwe Enterprises. The annual turnover of the business has always exceeded K5,000,000. He has always prepared accounts to 31 December each year. He has always involved his wife Nancy Nanyangwe, in running the business, as an employee.

Sinyangwe wishes to incorporate the business and start running it as a private limited company, known as Yangwe Limited from 1 June 2025. The share capital of the company will be held by Sinyangwe and Nanyangwe with Sinyangwe holding 95% of the ordinary share capital and Nanyangwe holding the remaining 5%. Sinyangwe and Nanyangwe will run the company as full-time working directors, preparing accounts to 31 December each year. All assets held by the business at 31 May 2025, will be transferred to Yangwe Limited. The results of the business in the tax year 2025, before and after incorporation are expected to be as follows:

5-month Period to 31 May 2025

Sinyangwe has estimated the net profit as per accounts before deducting payments to Sinyangwe and Nanyangwe and any NAPSA and NHIMA contributions for the period from 1 January 2025 to 31 May 2025, to be K2,160,000. All the other expenses that will be incurred and deducted in arriving at the net profit figure of K2,160,000 are allowable expenses for taxation purposes. Sinyangwe is entitled to an annual salary of K348,000, and additionally draws an annual motoring allowance of K120,000. Nanyangwe's annual salary is K240,000 and she additionally draws an annual motoring allowance of K120,000.

The assets held by the business qualifying for capital allowances at 1 January 2025 and their original costs including their respective expected market values at 31 May 2025, are as follows:

Asset	**Date purchased and brought into use**	**Original costs**	**Market values at 31 May 2025**
	K	**K**	**K**
Buildings	10 March 2020	25,000,000	34,000,000
General plant	12 April 2024	12,500,000	8,500,000
Manufacturing equipment	18 June 2024	18,200,000	7,800,000
Mazda (BT-50) Double Cab Van	20 September 2023	1,820,000	980,000
Isuzu Single Cab Van	25 November 2023	1,620,000	1,140,000

The buildings were purchased brand new in March 2020 and comprises land with an original cost of K5,000,000 on 10 March 2020 and a market value of K8,000,000 on 31 May 2025, a production factory with an original cost of K16,000,000 on 10 March 2020 and a market value of K19,000,000 on 31 May, 2025 and administration offices with an original cost of K4,000,000 on 10 March 2020 and a market value of K7,000,000 on 31 May 2025.

Sinyangwe has always used the Mazda (BT-50) Double Cab Van (which has a cylinder capacity of 2,800cc) 40% for private purposes. The Isuzu Single cab van (2,500cc) is used in the business as a delivery van, but Nanyangwe has always used the van 25% for private purposes.

7-month Period ended 31 December 2025

The net profit as per accounts for the Yangwe Ltd for the seven months to 31 December 2025, are expected to be K9,932,287. This net profit figure is before any withdrawals of profits by Sinyangwe and Nanyangwe and NAPSA and NHIMA contributions.

After incorporating the business on 1 June 2025, Sinyangwe and Nanyangwe will maintain their entitlement to annual salaries of K348,000 and K240,000 respectively. Sinyangwe and Nanyangwe will additionally continue drawing annual motoring allowances of K120,000 each. Sinyangwe will continue using the business the Mazda B T-50 Double Cab Van 40% for private purposes and Nanyangwe will continue using the Isuzu Single cab van 25% for private purposes.

NAPSA and NHIMA contributions payable where applicable should be taken to be 5% and 1% of the relevant income per annum respectively.

The earnings ceiling for the purposes of NAPSA contributions should be taken to be K409,968 per annum.

Required:

(a) Advise Sinyangwe and Nanyangwe of how income each individual will generate from the business will be assessed to income tax in the tax year 2025. (3 marks)

(b) Advise Sinyangwe of the basis of assessment for the profits which will be generated from business in the five (5) months to 31 May 2025, and compute the final taxable profits for this period. (18 marks)

(c) Advise Sinyangwe of the basis of assessment for the profits which will be generated by the business for the seven (7) month period after incorporation and compute the final company income tax payable by Yangwe Ltd Limited for the tax year 2025.

(13 marks)

(d) Compute the final income tax payable by Sinyangwe and Nanyangwe in the tax year 2025. (6 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt any THREE (3) questions.

QUESTION TWO

Kangano Mining Plc. is a Zambian resident company engaged in mining of copper. The company maintains its accounts in United States Dollars (US$). The company is a member of the Welma Plc. Group of companies, whose head office is in Mexico City, South America. Management of Kangano Mining plc. are concerned with the sharp depreciation of the Kwacha against the United States Dollar in the recent past and is planning to hedge the exposure of the company to currency risk. They are however not sure of the tax treatment of any income or losses that may arise from hedging.

The following is a summarised statement of profit or loss for Kangano Mining Plc. for the year ended 31 December 2025.

	K'000
Gross Profit	634,806.50
Operating expenses (Note 1)	(214,830.00)
Other income (Note 2)	1,250.00
Profit before finance costs and taxation	421,226.50
Finance costs	(30,000.00)
Profit before tax	391,226.50
Income tax expense	(77,166.50)
Profit after tax	314,060.00

The following additional information is relevant:

(1) Operating expenses comprise the following:

	K000
Impairment losses on mining equipment	30,000
Sinking boreholes in a non-mining township	19,500
Hedging losses	7,500
Depreciation	27,000
Mineral prospecting expenses	6,750
Unrealized foreign exchange losses	66,080
Miscellaneous allowable operating expenses	58,000
Total	214,830

(2) Other income

This comprise interest on GRZ bonds of K450,000 (gross), rental income of K600,000 and dividends from companies listed on the Lusaka Securities Exchange of K200,000 (gross).

(3) Income tax expense

The income tax expense shown in the statement of profit or loss represents the provisional income tax paid for the tax year 2025.

(4) Mineral royalty

The Mineral royalty tax paid by the company has not been accounted for in the statement of profit or loss extract shown above. For the year ended 31 December 2025, the company extracted and sold 15,000 tonnes of copper. The norm price of copper on the London Metal Exchange (LME) averaged US$8,000 per tonne throughout the year. The relevant average Zambian kwacha per US dollar rate approved by the Commissioner General should be taken to be K26.00/US$1 for the year 2025.

(5) Implements plant and machinery

Year of Acquisition	**Asset**	**Original Cost**
		K'000
2024	Mining equipment	78,000
2022	Copper smelting plant	25,000
2025	Commercial Vehicles	3,900

The mining equipment was imported from foreign suppliers and paid for in United States Dollars and converted into Zambian kwacha on the date of acquisition. The expenditure on the smelting plant and commercial vehicles was incurred in Zambia and paid for in Zambian Kwacha.

(6) Indexation formula

The indexation formula for capital allowances and mining losses, where applicable is given below:

$$1+\frac{(R_2-R_1)}{R_1}$$

(7) The following Zambian kwacha per US dollar (K/US$) average BOZ mid-exchange rates should be used where applicable:

Accounting Period	**Average BOZ Mid-Exchange rate ZMW/US$**
Year ended 31 December 2023	K23.80
Year ended 31 December 2024	K24.50
Year ended 31 December 2025	K26.00

Required:

(a) Advise the Directors of the tax treatment of income and losses arising from hedging. (2 marks)

(b) Compute Kangano Mining Plc.'s company income tax payable for the tax year 2025. (18 marks)

[Total: 20 Marks]

QUESTION THREE

RiskFree General Insurance is a Zambian resident company that is engaged in the provision of general insurance services. The company listed its shares on the Lusaka Securities Exchange (LuSE) in March 2025 and 22% of its issued equity shares were taken up by indigenous Zambians.

The following information was extracted from the books of Riskfree General Insurance for the year ended 31 December 2025:

		K
Gross premiums received		306,100,000
Claims received under reinsurance from re-insurers		54,300,000
Claims paid to customers		118,400,800
Insurance premiums paid to re-insurers		64,900,000
Allowance for unearned premiums at 1 January 2025		124,000
Allowance for unearned premiums at 31 December 2025		129,600
Outstanding claims from customers at 1 January 2025		133,100
Outstanding claims from customers at 31 December 2025		99,800
Other income	(Note 1)	1,400,000
Commissions received		3,800,000
Commissions paid		2,600,000

Net gain on foreign exchange transactions	(Note 2)	211,100
Operating expenses	(Note 3)	101,600,000

The following additional information is relevant:

(1) **Other income**

Other income is made up of dividends of K157,250 (net), Interest on GRZ Bonds of K722,500 (net) and profit on disposal of an old office building of K520,250. Withholding tax had been deducted at source where applicable.

(2) **Net gain on foreign exchange transactions**

This comprised of the following:

	K
Unrealized foreign exchange gains	118,420
Realized foreign exchange gains	177,810
Realized foreign exchange losses	(69,290)
Unrealized foreign exchange losses	(15,840)
	211,100

(3) **Operating expenses**

Operating expenses are made up of the following:

	K
Salaries and wages (Note 4)	60,100,000
Depreciation	1,100,000
Staff refreshments and canteen expenses	1,630,000
Penalties for non-compliance with tax regulations	299,200
Donation to approved public benefit organisations	1,923,000
Staff loans written off	1,901,200
Employee pension benefits (Note 5)	6,190,000
Other revenue allowable expenses	28,456,600
	101,600,000

(4) **Salaries and wages**

Salaries and wages include gross emoluments for the Human Resources Director and Risk Manager amounting to K1,800,000 and K1,200,000 respectively. The Human Resources Director and the Risk Manager are accommodated in company owned houses for which they pay no rent.

(5) **Employee pension benefits**

The company is currently running a defined benefit pension plan. The amount of K6,190,000 was calculated in accordance with IAS 19 – Employee Benefits. The company paid employee benefits amounting to K5,100,000 to retired employees during the year ended 31 December 2025.

(6) **Provisional income tax**

The company paid provisional income tax amounting to K21,918,018 during the year ended 31 December 2025.

(7) **Non-current Assets**

The company had the following non-current assets qualifying for capital allowances as at 1 January 2025:

Asset	**Original cost**	**Income tax value**
	K	K
Office building (Land – K600,000)	4,100,000	2,660,000
Office equipment	1,100,000	550,000
Pool cars	2,300,000	920,000

During the year ended 31 December 2025, the company entered into the following transactions:

	Cost/(proceeds)
	K
Bought new office building (Land – K1,800,000)	9,100,000
Sold old office building (Land – K1,200,000)	(7,400,000)
Bought fixture and fittings	1,500,000

Required:

(a) Calculate the taxable business profit of RiskFree General Insurance Company for the year ended 31 December 2025. (15 marks)

(b) Calculate the amount of income tax payable for the tax year 2025. (5 marks)

[Total: 20 Marks]

QUESTION FOUR

You are employed in a firm of Chartered Accountants as a Senior Tax Consultant. Your supervisor has provided you with information relating to a client of your firm ZamCorp Ltd.

ZamCorp is a Zambian resident company engaged in farming. The company has been a client of your firm for many years for both audit and financial reporting services. Due to the good relationship your firm has with ZamCorp, the company approached your firm to additionally provide tax services for the year ended 31 December 2025. The Managing Director of ZamCorp who is your close family friend, has offered all members of your firm to buy farm produce from the company at discounted prices of 40% of the normal open market value of the produce.

ZamCorp has an active case before the Tax Appeals Tribunal (TAT) in which the directors appealed against the decision by the Commissioner General to reject an input VAT claim made by the company in the previous tax year. The directors have asked you to represent them when the case comes up for hearing.

While performing work on the assignment, you have noticed that the company has provided free residential accommodation to all the four (4) Directors. However, no adjustment was made to the taxable business profit of the company for the accommodation benefit. The Directors have indicated to you that this is not a big issue as it is considered to be tax planning.

Kalenga Zulu is the Finance Director of ZamCorp. He is entitled to an annual salary amounting to K720,000 and a general purpose allowance amounting to 10% of the basic salary. Income tax deducted from his salary under the pay as you earn system amounted to K189,600 for the tax year 2025.

He holds investments in various companies resident in Zambia from which he received the following income during the year ended 31 December 2025:

	K
Dividends from listed companies	20,000
Dividends from private companies	24,140
Royalties	32,470

The above amounts represent the actual cash received. Withholding tax had been deducted at source where applicable.

Kalenga also holds investments in a foreign country in form of shares and property which is let out to tenants in that foreign country. During the year ended 31 December 2025, he received dividends amounting to K57,960 and rental income amounting to K156,000 from the foreign investments. The dividends are net of foreign withholding tax deducted at a rate of 31% while rental income is net of foreign withholding tax deducted at a rate of 35%.

There is no double taxation relief between Zambia and the foreign country in which Kalenga has investments. Any double taxation relief is given unilaterally by way of credit in Zambia.

Required:

(a) Discuss the ethical and other professional issues you will face when performing your duties at ZamCorp and recommend how each issue should be dealt with. (11 marks)

(b) Calculate the amount of income tax payable by Kalenga for the tax year 2025.

(9 marks)

[Total: 20 Marks]

QUESTION FIVE

You are employed in a tax practice, and you are dealing with the tax affairs of Dawn Ltd a Zambian resident company engaged in manufacturing, which is registered for VAT. You have been presented with the following statement of profit or loss for the company for the year ended 31 December 2025:

	Note	K
Revenue		273,548,948
Cost of sales		(143,401,050)
Gross profit		130,147,898
Operating expenses	(1)	(50,250,450)
Profit before Interest and Tax		79,897,448
Finance cost	(2)	(41,673,504)
Profit before tax		38,223,944

Additional information

Note 1 Operating expenses

Operating expenses include depreciation charges of K23,250,000 and amortisation charges of K5,400,000. The remaining operating expenses are all allowable for tax purposes.

Note 2: Finance cost

The figure for finance cost of K41,673,504 shown in the statement of profit or loss above represents bank overdraft interest paid by the company during the year.

Note 3: Capital expenditure:

All of the assets qualifying for capital allowances were written down to zero as at 1 January 2025. During the year ended 31 December 2025, the company entered into the following transactions, which have not been recorded in the financial statements:

Transaction 1

On 1 April 2025, the company purchased a second-hand building from Realtors Ltd, a VAT registered Real Estates Developer, at a cost of K7,134,000 (VAT exclusive). The total cost comprised land with a cost of K564,000, a factory with a cost of K4,800,000, staff welfare facilities with a cost of K720,000, a showroom with a cost of K315,000 and general offices with a cost of K735,000. The purchase of the building was financed by a bank loan of K7,500,000 carrying an interest rate of 24.26% per annum. Loan processing fees of K366,000 were charged by the bank. In addition to the loan processing fees, interest on the bank loan amounted to K909,750 for the year ended 31 December 2025. The building has since been brought into use.

Transaction 2

On 12 January 2025, the company purchased a new manufacturing equipment at a total cost of K7,200,000 (VAT inclusive) from a Zambian resident supplier. The equipment was acquired under a finance lease agreement under which Dawn Ltd will be required to make annual lease payments of K2,100,000 payable in advance. The lease term is five (5) years at the end of which title to the equipment will be transferred to Dawn Ltd. The company has established that the interest on the lease obligations for the year ended 31 December 2025 was K550,746 at the company's incremental rate of borrowing of 14% per annum. The equipment was brought into use immediately.

The Directors of the company are seeking advice on the tax treatment of each transaction when computing taxable profits for the year.

Required:

(a) Advise the Directors, using appropriate supporting computations, of the taxation implications arising from the following transactions referred to in note (3) above.

(i) Transaction 1 (7 marks)

(ii) Transaction 2 (4 marks)

(b) Compute the final taxable profit and the amount of company income tax payable by Dawn Ltd for the tax year 2025. (9 marks)

[Total: 20 Marks]

END OF PAPER

CA 3.4 ADVANCED TAXATION

SUGGESTED SOLUTIONS

SOLUTION ONE

(a) Tax treatment of income generated by Sinyangwe and Nanyangwe

On incorporation, the old business ran as sole trader will be deemed to have ceased trading and new company Yangwe Ltd deemed to have commenced trading on the date of incorporation.

Sinyangwe will be assessed as sole trader on the income generated by the business in the five months which will be classified as business profit, whilst the income he will draw in the last seven months as a director in Yangwe Limited after incorporation of the business will be classified as employment income. This income will be aggregated and then subjected to the personal income tax rates.

The income earned by Nanyangwe before and after incorporation will be assessed on her as employment income.

(b) Basis of assessment for profits in the first five months

Cessation rules will be applied to determine the tax year in which the final taxable profits, made in the first five months will be assessed.

Since the last accounting period of operating as a sole trader is less than 12 months, the profits made in the 5-month period will be assessed in the tax year following the one in which the profits of the second last accounting period of running the business as sole trader were assessed, that is the tax year 2025.

Assets qualifying for capital allowances will be deemed to have been disposed of at their market values and therefore balancing allowances or charges will arise when computing final taxable profits for the first 5 months

COMPUTATION OF FINAL TAXABLE PROFITS

	K
Taxable profit as per question	2,160,000
Add Net Balancing charge (W1)	4,087,800
	6,247,800
Less	
Nanyangwe"s salary (K240,000 x 5/12)	(100,000)
Nanyangwe's motoring allowance	
(K120,000 x 5/12)	(50,000)
Employer's NAPSA contributions	
(K100,000 + 50,000) x 5%	(7,500)
Employer's NHIMA contributions (K100,000 x 1%)	(1,000)
final taxable income	6,089,300

COMPUTATION OF CAPITAL ALLOWANCES

	K	K
Allowances on buildings		
Original cost	25,000,000	
Less cost of land	(5,000,000)	
	20,000,000	
10% Test (10% x 20,000,000)	2,000,000	
Therefore, administration offices are classified as commercial buildings		
Production factory		
Cost	16,000,000	
Less total wear & tear allowances		
Initial allowance (K16m x 10%)	1,600,000	
Normal W&T (K16m x 5%) x 5yrs	4,000,000	
ITV b/f at 1 January 2025	10,400,000	
Disposal (Restricted to cost)	16,000,000	
Balancing charge	(5,600,000)	(5,600,000)
Administration offices		
ITV b/f at 1 Jan 2025		
(K4,000,000 x 90%)	3,600,000	
Disposal (restricted to cost)	(4,000,000)	
Balancing charge	(400,000)	(400,000)
		(6,000,000)
General plant		
ITV b/f at 1 Jan 2025		
(K12,500,000 x 75%)	9,375,000	
Disposal	(8,500,000)	
Balancing allowance	875,000	875,000
Manufacturing equipment		

ITV b/f at 1 Jan 2025			
(K18,200,000 x 50%)	9,100,000		
Disposal	(7,800,000)		
Balancing allowance	1,300,000		1,300,000
Mazda (BT-50)Double Cab Van			
ITV b/f (K1,820,000 x 60%)	1,092,000		
Disposal	(980,000)		
Balancing allowance	112,000	x 60%	67,200
Isuzu Single Cab Van			
ITV b/f (K1,620,000 x 50%)	810,000		
Disposal	(1,140,000)		
Balancing charge	(330,000)		(330,000)
Net balancing charge			(4,087,800)

(c) Basis of assessment for profits made by YANGWE Ltd

Commencement rules would be applied in determining the tax year in which the final taxable profits made by YANGWE Limited in the 7 months to 31 December 2025, will be taxed.

Since the first accounting period of trading as a private limited company is made up of less than 12 months, the normal rules will apply. Specifically, the current year basis of assessment will apply as the accounting date falls between 1 April and 31 December inclusive. The profits will be taxed in the tax year 2025.

On incorporation YANGWE will be deemed to have purchased the assets qualifying for capital allowances at their market values from the sole proprietorship and therefore capital allowances will be computed using the market values of the assets on the date of incorporation when computing the final taxable profits of YANGWE Ltd.

COMPUTATION OF FINAL COMPANY INCOME TAX PAYABLE BY YANGWE LIMITED

	K	K
Profit as per question		9,932,287
Personal to holder motor car benefit		57,600
		9,989,887
Less:		
Salaries for:		
Sinyangwe (K348,000 x 7/12)	203,000	
Nanyangwe's salary (K240,000 x 7/12)	140,000	
		(343,000)
Motoring allowances for:		
Sinyangwe (K120,000 x 7/12)	70,000	
Nanyangwe (K120,000 x 7/12)	70,000	
		(140,000)
Employer's NAPSA contributions for:		
Sinyangwe restricted to:	11,957	
(K409,968 x 7/12) x 5%		

Nanyangwe (K140,000 + K70,000) x 5%	10,500	
		(22,457)
Employees NHIMA contributions for:		
Sinyangwe restricted (K203,000 x 1%)	2,030	
Nanyangwe (K140,000 x 1%)	1,400	
		(3,430)
Capital allowances (W)		(7,596,000)
Final taxable profits		1,885,000
Company income tax K1,885,000 x 30%		565,500

COMPUTATION OF CAPITAL ALLOWANCES

General plant	K
Wear & tear allowance	
(K8,500,000 x25%)	2,125,000
Manufacturing equipment	
Wear & tear allowance	
(K7,800,000 x 50%)	3,900,000
Mazda (BT-50)Double Cab Van	
Wear & tear allowance	
(K980,000 x 20%)	196,000
Isuzu Single Cab Van	
Wear & tear allowance	
(K1,140,000 x 25%)	285,000
Production factory	
Wear & tear allowance	
(K19,000,000 x 5%)	950,000
Administration offices	
Wear & tear allowance (K7,000,000 x 2%)	140,000
	7,596,000

(d) PERSONAL INCOME TAX COMPUTATIONS FOR THE TAX YEAR 2025 FOR

	Sinyangwe	Nanyangwe
	K	K
Business Profits	6,089,300	-
Employment income		
Sinyangwe's director's emoluments		
(K348,000 x 7/12)	203,000	
Namfukwe's Salary (K100,000 + K140,000)		240,000
Motoring allowances	70,000	120,000
Total income	6,362,300	360,000
Income Tax		
On first K110,400	12,360	12,360
On excess K6,251,900/K249,600 x 37%	2,313,203	92,352
Income tax liability	2,325,563	104,712

SOLUTION TWO

(a) HEDGING

Hedging income or hedging gains earned by mining companies are taxed as a separate source of income, from mining operations being carried on, at a rate of 30%. When a loss is incurred from hedging, the loss can be carried forward and deducted from future hedging income.

Unrelieved hedging losses can be carried forward for up to ten (10) years as they are still treated as losses from mining.

(b) KANGANO MINING PLC
COMPUTATION OF INCOME TAX PAYABLE FOR THE TAX YEAR 2025

	K'000	K'000
Profit before tax		391,226.50
Add:		
Depreciation	27,000	
Impairment losses	30,000	
Sinking boreholes	19,500	
Hedging losses	7,500	
Unrealized foreign exchange losses	66,080	
		150,080
		541,306.50
Less:		
Interest on GRZ bonds	450	
Dividends from a company listed on LuSE	200	
Rental income	600	
Mineral Royalty Tax	193,073.4	
Capital allowances (Wk 1)	22,530.1	
		(216,853.5)
Taxable mining profit before interest adjustment		324,453
Disallowed interest		Nil
Taxable business profit		324,453
Interest on GRZ bonds		450
Total taxable income		324,903
Company income tax on		
Mining profits: K324,904 X 30%		97,336
Interest on GRZ bonds: K450 x 30%		135
Income tax liability		97,471
Less Tax already paid:		
WHT on GRZ bond interest (K450 x 15%)	67.5	
Provisional Income tax	77,166.50	
		(77,234)
Income tax payable		20,237

WORKINGS

(1) MINERAL ROYALTY TAX

	K
On First ($3,999 x 15,000 tonnes x 4% x K26)	62,384,400
On Next ($1,000 x 15,000 tonnes x 6.5% x K26)	25,350,000
On Balance ($2,000 x 15,000 tonnes x 8.5% x K26)	66,300,000
On Balance ($1,001 x 15,000 tonnes x 10% x K26)	39,039,000
	193,073,400

(2) COMPUTATION OF CAPITAL ALLOWANCES

	K000
Mining equipment	
Wear and tear allowance	
[1+ (26-24.5)/24.5] x 20% x K78,000,000	16,555.1
Copper smelting plant	
K25,000,000X 20%	5,000
Commercial Vehicles	
K3,900,000 x 25%	975
Total	22,530.1

(3) COMPUTATION OF TAX EBITDA

	K'000
Taxable business profit	324,453
GRZ Bond Interest	450
	324,903
Finance cost	30,000
Depreciation	27,000
Tax EBITDA	381,903

(4) COMPUTATION OF DISSALLOWED INTEREST

	K'000
Finance cost	30,000
Allowable interest (30% x K381,903)	(114,571)
Disallowed interest	Nil

The interest (finance) cost is less than the 30% of tax EBITDA of K114,571,000. Therefore, the whole K30,000,000 is allowable when computing the taxable business profits.

(5) ALTERNATIVE COMPUTATION OF TAXABLE MINING PROFIT

	K'000	K'000
Profit before tax		421,226.50
Add:		
Depreciation	27,000	
Impairment losses	30,000	
Sinking boreholes	19,500	
Hedging losses	7,500	
Unrealized foreign exchange losses	66,080	
		150,080
		571,306.50
Less:		
Interest on GRZ bonds	450	
Dividends from a company listed on LuSE	200	
Rental income	600	
Mineral Royalty Tax	193,073.4	
Capital allowances (W1)	22,530.1	
		(216,853.5)
Taxable mining profit before interest adjustment		354,453
Allowable interest		(30,000)
Taxable mining profit		324,453

(6) ALTERNATIVE COMPUTATION OF TAX EBITDA AND DISALLOWABLE INTEREST

	K'000
Taxable business profit	354,453
GRZ Bond Interest	450
	354,903
Depreciation	27,000
Tax EBITDA	381,903

SOLUTION THREE

(a) RISKFREE GENERAL INSURANCE'S
COMPUTATION OF TAXABLE BUSINESS PROFITS FOR THE TAX YEAR 2025

	K	K
Gross premiums		306,100,000
Allowance for unearned premiums at 1 Jan 2025	124,000	
Allowance for unearned premiums at 31 Dec 2025	(129,600)	
		(5,600)
Outstanding claims from customers at 1 Jan 2025	133,100	
Outstanding claims from customers at 31 Dec 2025	(99,800)	
		33,300
		306,127,700
Amounts received under reinsurance		54,300,000
Claims paid to customers		(118,400,800)
Insurance premiums paid to reinsurers		(64,900,000)
		177,126,900
Net commissions income (K3,800,000 – K2,600,000)		1,200,000
Net exchange gain (K177,810 – K69,290)		108,520
		178,435,420
Less:		
Salaries and wages	60,100,000	
Donations to approved organization	1,923,000	
Employee benefits paid	5,100,000	
Other allowable expenses	28,456,600	
Capital allowances	416,000	
		(95,995,600)
		82,439,820
Free accommodation benefit:		
Human Resources Director (K1,800,000 x 37%)	666,000	
Risk Manager (K1,200,000 x 37%)	444,000	
		1,110,000
Taxable business profits		83,549,820

WORKINGS
COMPUTATION OF CAPITAL ALLOWANCES

Old office building	
Bal charge (K2,660,000 – K3,500,000)	(840,000)
Office equipment	
Wear & tear (K1,100,000 x 25%)	275,000
Pool cars	
Wear & tear (K2,300,000 x 20%)	460,000
New office building	
W & T (K9,100,000 – K1,800,000) x 2%	146,000
Fixtures & fittings	
Wear & tear (K1,500,000 x 25%)	375,000
Total capital allowances	416,000

(b) RISKFREE GENERAL INSURANCE
COMPANY INCOME TAX PAYABLE BY FOR THE TAX YEAR 2025

	K
Adjusted business profits	83,549,820
Add:	
Interest on GRZ Bonds (K722,500 x 100/85)	850,000
Total taxable income	84,399,820
Company income tax [K84,399,820 x (30 – 2) %]	23,631,950
Less:	
Provisional income tax paid	(21,918,018)
WHT – Interest (K850,000 x 15%)	(127,500)
Income tax payable	1,586,432

SOLUTION FOUR

(a) The following are the ethical and professional issues when performing the duties at ZamCorp:

(1) Familiarity threat

This is the threat that due to a close relationship with the client, the member may become too sympathetic or too accepting of the work. The company has been a client of the firm for some time and the Managing Director is a close family friend. This means that there is a risk that due to relationship a member may become too accepting of the work of ZamCorp resulting in loss of professional skepticism and therefore objectivity on any work performed for the client.

This threat can be managed by having an independent professional review any work performed by your firm on behalf of the client.

(2) Advocacy threat

This is the threat that occurs when a member is asked to represent or promote the client in the courts of law and/or tribunals, which may likely to cause the member to be biased towards the interest of the client. ZamCorp has an active case before the Tax Appeals Tribunal and have requested the firm to represent them. This may result in the member being biased in favour of ZamCorp.

The appropriate safeguard is to decline the assignment to represent the client before the Tax Appeals Tribunal.

(3) Self-interest threat

This is the threat that occurs when a member has financial or other interests in the clients' activities which may inappropriately influence their professional judgements. First of all, the firm seem to be over reliant on ZamCorp for business as the firm provides audit, financial reporting and tax services.
In addition, the Managing Director has proposed to award a discount of 40% to the member on all purchases made from ZamCorp. This may inappropriately influence professional judgement of the member.

The appropriate action is to decline the offer to purchase farm produce at a discounted price. The company should also put in place measures to reduce the undue dependence on the client

(4) Failure to adjust for free accommodation benefit

The Failure to adjust for free accommodation benefit would amount to tax evasion as tax law requires that where an employee has been provided with free residential accommodation, the employer should be taxed on this benefit by disallowing 37% of the taxable emoluments, when computing taxable profit for the employer.

The appropriate action is to advise the client to make the necessary adjustments and submit an amended tax return.

(b) KALENGA

PERSONAL INCOME TAX COMPUTATION FOR THE TAX YEAR 2025

	K	K
Zambian income		
Basic salary		720,000
General purpose allowance (K720,000 x 10%)		72,000
Royalties (K32,470 x 100/85)		38,200
		830,200
Foreign income		
Dividends (K57,960 x 100/69)		84,000
Taxable income		914,200
Income Tax:		
First K110,400		12,360
Excess (K914,200 – K110,400) x 37%		297,406
Income tax liability		309,766
Less:		
WHT on Royalties (K38,200 x 15%)		(5,730)
Income tax paid under pay as you earn		(189,600)
Double taxation relief (W)		(26,040)
Income tax payable		94,126

Working

Total assessable income	
Gross taxable income	914,200
Dividends from Zambian private companies	
(K24,140 x 100/85)	28,400
Total assessable income	942,600
Zambian tax charge	
Income tax liability	309,766
WHT on dividends (K28,400 x 15%)	4,260
Total Zambian tax charge	314,026
Double taxation relief	
Foreign tax paid: K84,000 x 31% =	26,040

Zambian tax charge:

$$\frac{\text{Gross foreign income}}{\text{Total assessable income}} \times \text{Zambian tax charge}$$

$$\frac{K84{,}000}{K942{,}600} \times K314{,}026$$

= K27,984

The double taxation relief is K26,040 which is the lower of Zambian equivalent tax.

SOLUTION FIVE

(a) (i) PURCHASE OF SECOND – HAND BUILDING

The following will be the taxation implications arising from the purchase of the building using a bank loan:

(1) VAT will be recoverable on the total cost of the building. The amount of the recoverable input VAT will amount to K1,141,440 (K7,134,000 x16%)

(2) The loan processing fees of K366,000 and the loan interest incurred amounting to K909,750 will both be included as part of the interest expense and will be subjected to the 30% tax earnings before interest, tax, depreciation and amortization (EBITDA) test when determining how much of total interest expense incurred by the company during the year will be allowable when computing the taxable business profit.

(3) Capital allowances on the building are claimable at the appropriate rate of wear and tear. Initial and investment allowances will not be available because DAWN is not the first user of the building.
The amount of capital allowances claimable on the building for the tax year 2025 will be:

	K
Factory	
Wear & tear: K4,800,000 x 5%	240,000
Staff welfare facilities	
Wear & tear: K720,000 x 5%	36,000
Showroom	
Wear & tear: K315,000 x 2%	6,300
General offices	
Wear & tear: K735,000 x 2%	14,700
Total capital allowances	297,000

Workings

	K
Cost	7,134,000
Less cost of land	(564,000)
Qualifying expenditure	6,570,000

K6,570,000 x 10% = K657,000.

The total cost of non – industrial building is more than 10% of the qualifying expenditure; i.e.; K315,000 + K735,000 = K1,050,000. Therefore, the non – industrial building should be classified as commercial building.

(ii) PURCHASE OF NEW MANUFACTURING EQUIPMENT

The following will be taxation implications arising from the purchase of the manufacturing equipment using a finance lease agreement:

(1) Input VAT incurred on the purchase of manufacturing equipment will be recoverable. The amount of VAT is: K7,200,000 x 4/29 = K993,103.
(2) The interest component of the lease obligation amounting to K550,746 will be included as part of the interest expense and will be subjected to the 30% tax earnings before interest, tax, depreciation and amortization (EBITDA) test when determining how much of total the interest expense incurred by the company during the year will be allowable when computing the taxable business profit.
(3) The capital repayment component of the lease rental (K2,100,000 – K550,746 = K1,549,254) is not allowable when computing the taxable profits.
(4) Capital allowances are claimable at a rate of 50% on the VAT exclusive amount. Capital allowances claimable will be: K7,200,000 x 25/29 x 50% = K3,103,448.

(b) COMPUTATION OF TAXABLE PROFIT AND COMPANY INCOME TAX PAYABLE

	K	K
Profit before Interest and Tax		79,897,448
Add:		
Depreciation	23,250,000	
Amortisation	5,400,000	
		28,650,000
		108,547,448
Less capital allowances on		
Machinery	3,103,448	
Buildings	297,000	
		(3,400,448)
Taxable profit before allowable interest		105,147,000
Less allowable interest (W3)		(40,139,100)
Final taxable profits		65,007,900
Company Income Tax payable @30%		19,502,370

WORKINGS

(1) REVISED INTEREST EXPENSE

	K	K
Bank overdraft Interest		41,673,504
Add: Interest expense not charged to accounts		
Interest component of finance lease	550,746	
Loan processing fees	366,000	
Loan interest	909,750	
		1,826,496
		43,500,000

(2) COMPUTATION OF TAX EBITDA

	K
Taxable profit before interest adjustment	105,147,000
Add	
Depreciation	23,250,000
Amortisation	5,400,000
Tax EBITDA	133,797,000

(3) COMPUTATION OF ALLOWABLE & DISALLOWED INTEREST

	K
Revised finance cost	43,500,000
Allowable interest (30% x K133,797,000)	(40,139,100)
Disallowed Interest	3,360,900

(4) ALTERNATIVE METHOD OF COMPUTING THE FINAL TAXABLE PROFIT

The final taxable profit can alternatively be computed as follows:

	K	K
Profit Before Tax as per question		38,223,944
Less interest expense not charged to accounts (W1)		(1,826,496)
Revised Profit before tax as per accounts		36,397,448
Add:		
Depreciation	23,250,000	
Amortisation	5,400,000	
		28,650,000
		65,047,448
Less capital allowances on		
Machinery	3,103,448	
Buildings	297,000	
		(3,400,448)
Taxable profit before disallowed interest adjustment		61,647,000
Add Disallowable Interest (W6)		3,360,900
Final taxable profit as computed in the solution above		65,007,900
Company Income Tax @30%		19,502,370

(5) ALTERNATIVE COMPUTATION OF TAX EBITDA

	K
Taxable profit before interest adjustment	61,647,000
Add	
Revised Interest expense (W1)	43,500,000
Depreciation	23,250,000
Amortisation	5,400,000
Tax EBITDA as computed in (W2) above	133,797,000

END OF SUGGESTED SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA 3.5: ADVANCED MANAGEMENT ACCOUNTING

TUESDAY 9 DECEMBER 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.

<u>QUESTION ONE - COMPULSORY</u>

Mafuta Ltd (M Ltd) owns a chemical works factory in the Mushili area of Ndola. The shares in M Ltd are owned by a number of multi – national chemical companies. M Ltd converts crude oil into diesel.

M Ltd has the capacity to process 2 million litres of crude oil per year. Crude oil costs K10 per litre and diesel is sold on the OPEC chemical market at a market price of K20 per litre. These prices are current at January 2025 and are expected to remain stable if the effects of inflation are excluded.

The Mushili works were opened in 2013 and have operated continuously at full capacity since that time. M Ltd is one of the major employers and payers of local taxes in the Mushili area. Consequently, the local community has been reluctant to criticize any aspect of its operation.

The works process involves the emission of a variety of noxious substances into the atmosphere. Since 2013 this has had the following effects on Mushili area:

- When it rains, the paintwork of cars left in the open is discoloured;
- There is extensive damage to local vegetation and wildlife;
- Peasant farmers have been forced to discontinue the cultivation of certain crops because of soil contamination.
- Many residents suffer from breathing difficulties

So far, M Ltd has dealt with these problems by paying compensation to residents and farmers at an average total of K200,000 per year. It costs K60,000 per year to administer this compensation.

By 2024 environmental groups were taking an interest in the Mushili works. There have been a number of demonstrations at the site and the Mushili works featured prominently in a recent television documentary about industrial pollution.

In January 2025, M Ltd's owners expressed concern about the situation and instructed M Ltd' s management to submit a plan for dealing with it. Management decided to invest in a filter unit.

A filter unit can be fitted to the process at the works which will completely eliminate the noxious emissions. Relevant details of the filter unit are:

- The supply, fitting and commissioning of the unit will cost K4.4 million.
- The works will have to be shut down for one month to allow the fitting to take place; this shut down will achieve no cost savings other than those arising from the reduced use of crude oil.
- Once the filter is fitted, normal process losses will remain the same.
- The capital cost of the filter will qualify for lower interest rate finance from the Africa Development Bank (ADB) Environmental Fund. The ADB will make a loan to M Ltd of 50% of the filter's cost at a 5% interest rate. Repayment of the ADB loan on an annuity basis involving equal annual payments (interest and principal) over eight (8) years.

As an alternative, it is considered possible to resolve the immediate problems in the following way:

- Increase compensation paid to local residents and farmers from K200,000 to K500,000 per year.
- Make annual donations of K200,000 per year to environmental charities.
- Establish a wildlife sanctuary called the Malembeka Wild Life Sanctuary (MAWILISA) at a cost of K1,700, 000. It will be close to the Mushili works but located against the wind.

M Ltd evaluates projects using a 12% cost of capital and a ten-year horizon.

Required:

(a) Write a report suitable for presentation to M Ltd' s shareholders by evaluating the two (2) options in the manner you consider to be most appropriate and advising which option should be adopted.

Note: You should ignore taxation and inflation.

(20 marks)

(b) Explain what the environmental costs external to the Mushili works operation are and how you would express them in monetary terms. (12 marks)

In 2024 many Mushili residents were complaining that compensation paid by M Ltd was far too little and that bureaucratic procedures involved in processing claims discouraged many people from making claims. A citizens' action committee is formed and as a local accountant in the Mushili area you are approached for professional advice.

Required:

(c) Write a memorandum to the Chairman of one of M Ltd' s parent oil companies on behalf of the action committee, discussing the benefits to M Ltd of undertaking a regular 'environmental audit' of its operation. (8 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt any THREE (3) questions in this section.

QUESTION TWO

Kumawa Kwatu Ltd (KK Ltd). is a mid-sized manufacturing company that has been operating in a competitive industry for over ten (10) years. The company produces a wide range of consumer electronics. In recent years, KK Ltd has faced increasing pressure on its profit margins due to rising raw material costs and competition from low-cost manufacturers abroad. In an attempt to improve efficiency and profitability, the company's management has decided to introduce more sophisticated management accounting practices.

The Chief Finance Officer (CFO) has asked the management accounting team to analyse the following issues and provide recommendations for improving the company's performance:

(1) Cost Management:

Due to rising material costs, the CFO is concerned about the company's ability to maintain profitability. They have considered implementing Activity-Based Costing (ABC) to improve cost allocation accuracy and decision-making.

(2) Budgeting and Forecasting:

KK Ltd currently uses traditional budgeting methods (i.e., incremental budgeting), but management has noticed it is increasingly difficult to forecast accurately due to volatile market conditions. The CFO is considering switching to rolling forecasts.

(3) Performance Measurement:

The company uses financial metrics, such as return on investment (ROI) and net profit margin, as the primary basis for evaluating performance. However, the CFO believes that these measures may not be sufficient to evaluate performance in light of non-financial factors, such as customer satisfaction and sustainability practices.

Required:

(a) Discuss the advantages and potential challenges of implementing Activity-Based Costing (ABC) at KK Ltd. (4 marks)

(b) Explain the differences between traditional budgeting and rolling forecasts. Show how the rolling forecasts might help KK Ltd adapt to market volatility. (6 marks)

(c) Evaluate the advantages and disadvantages of using financial metrics alone for performance measurement. Suggest non-financial measures that KK Ltd might need to consider to provide a more comprehensive view of its performance. (10 marks)

[Total: 20 Marks]

QUESTION THREE

Printing Solutions Ltd (PS Ltd) is based in Ndola and is a major retailer selling digital printers. In recent years PS Ltd has opened new outlets and taken more support staff at the head office. As a result PS Ltd has outgrown its existing headquarters in Ndola and so the decision has been taken to relocate to a larger purpose-built building.

Although the building work is complete, there are a number of different initiatives associated with the relocation. These include making sure that the premises are ready to move into on time and within the budget and setting up a customer service contact team to support the retail outlets dealing with customer enquiries and complaints. In addition, an upgraded office IT support system is to be designed and must be ready for installation in the new premises. Patricia Chileshe, the head of facilities management, has decided to establish a project team to ensure that all of the activities associated with the move to the new premises are coordinated and within budget. She has the formal role of project sponsor working on behalf of the Board and has appointed Demas Ndunda to manage the project.

The Managing Director (MD) of PS Ltd has noted that there are a number of activities that the company would need to undertake in the planning phase of the project for relocation. This calls for effective planning and control; and this requires a good management information system. The following is the full quotation from the MD:

"Logical decision making requires timely and relevant information. An organisation is a collection of individuals; it has no natural memory of its own, since individuals come and go, administrators must design systems to collect and retain information for quite lengthy periods of time. Among other things, this means ensuring that managers are aware that the information exists. It is unfortunate but undeniably true that a considerable amount of managerial time is spent "re-inventing the wheel."

Required:

(a) Compare and contrast the roles of Patricia, as the project sponsor and Demas, as the Project Manager. (10 marks)

(b) Explain the information systems terms below to help address some of the issues raised by the MD.

(i) Knowledge Management. (4 marks)

(ii) Expert Systems. (3 marks)

(iii) Executive Information Systems. (3 marks)

[Total: 20 Marks]

QUESTION FOUR

Tech Innovate Solutions (TIS) is a medium-sized multinational technology company that specializes in developing innovative software solutions and hardware products for both corporate and individual customers. TIS manages all aspects of its operations, including product design, development, manufacturing, marketing, and distribution. The tech industry is highly dynamic, driven by rapidly evolving consumer preferences and technological advancements. Accurately predicting market trends can lead to significant profits from successful product launches.

The company's stated mission is to "design cutting edge technologies that enrich lives and drive innovation." TIS generates annual revenues of approximately K350 million, with sales equally divided among software subscriptions, hardware sales, and licensing agreements with other technology providers. Over the past five (5) years, TIS has launched 40 products, each costing an average of K21 million to develop and typically requiring 12 months from conception to market release. Meeting tight production deadlines is crucial for aligning product launches with key industry events, such as technology expos.

TIS's products have been moderately successful in receiving industry awards, though the company has yet to achieve any prestigious accolades. Its primary focus has been on commercial success, with innovation and design as secondary considerations.

The company employs a top-down approach to strategy development, identifying objectives that lead to critical success factors (CSFs), which are then measured through performance indicators (PIs). Currently, the company has identified two key CSFs:

(i) Enhance customer satisfaction.

(ii) Improve operational profitability.

The CEO is reviewing the current system for identifying and measuring CSFs and is concerned that the existing approach does not account for all factors influencing the business. Additionally, the CEO recognizes that the company's information system which is currently centered on a basic enterprise resource planning (ERP) system may need significant upgrades. There is interest in expanding the use of the company's website and digital platforms to enhance customer engagement and collect data for strategic decision-making. The CEO is preparing a report for TIS 's board of directors and has asked for your assistance in drafting sections of the report.

Required:

(a) Explain the difficulties multinational companies like TIS face in performance measurement when comparing performance against different companies which operate in different industries or countries.

(6 marks)

(b) Examine the types of information that TIS could use to set its CSFs and explain how this information could be utilized. (6 marks)

(c) Identify and discuss two (2) performance indicators (PIs) for each of the two (2) critical success factors provided in the question that could support their measurement.

(4 marks)

(d) Evaluate the impact of the proposed PIs for the design and functionality of TIS's website and management information system (MIS). (4 marks)

[Total: 20 Marks]

QUESTION FIVE

Global ABC is a multinational enterprise operating in both country X and country Y. Global ABC manufactures electronic components in country X and sells them to its subsidiary, Global DEF, in country Y. Global DEF then assembles the components into finished products and sells them to third-party customers in country Y. Both countries have similar tax rates of 30% on corporate income.

Recently, the tax authorities in country Y have raised concerns about the transfer pricing arrangements between Global ABC and Global DEF, believing that the price at which the components are sold from Global ABC to Global DEF is not reflective of market conditions. They suspect that the transfer price is being manipulated to shift profits from country Y to country X, potentially reducing the tax liabilities in country Y.

The current transfer price for the components is K50 per unit, and Global DEF sells the finished products for K200 per unit to external customers. The components sold by Global ABC cost K30 per unit to produce, and Global DEF incurs an additional K40 per unit in assembly costs.

Required:

(a) Explain the importance of transfer pricing for multinational enterprises. (4 marks)

(b) Identify and explain two (2) transfer pricing methods that could be used to determine the appropriate transfer price for the components sold from Global ABC to Global DEF.

(4 marks)

(c) Calculate the profitability of both Global ABC and Global DEF. Determine if the current transfer price of K50 per unit is reasonable and and give reasons for your answer. (6 marks)

(d) Recommend to Global ABC how to mitigate the risk of tax adjustments by the authorities in Country Y. (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

SOLUTION ONE

(a)

REPORT

To: The Managing Director, M Ltd
From: Management Accountant
Date: 14 February, 2025

Ref: **Emission of Noxious Substances**

Introduction

The alternative methods for dealing with the emissipns from the Mushili works have been appraised, assuming that funds generally cost 12% per annum and using a ten-year time horizon.

The first proposal is to fit a filter unit which will eliminate the noxious emissions. The NPV of this proposal is approximately K4.1 million (see Schedule A). This benefits from a loan from the ADB Environmental Fund at 5% per annum.

The second proposal is to increase compensation payments, make annual donations to environmental charities and establish a MAWILISA. It has a cost in net present value terms of approximately K4.5 million (see Schedule B).

If the decision were based on these figures alone, the first proposal should be chosen. However, there are other matters to consider.

The difference in costs is small. If compensation claims and donations were, say, to double after four years, the second proposal becomes more costly than the first.

This increase may well occur, as the pollution is attracting public attention and the people in Mushili area are becoming more organised. In addition, as the plant ages, emissions are likely to get worse, and, even at current levels, continued exposure may have a more significant effect on people's health.

Furthermore, the annual donations to charities may seem low if they are to be divided between a large number of recipients.

(i) The one-off cost of K1,700,000 for the wildlife sanctuary may be an understatement, as there may be running costs to pay each year.

(ii) The second proposal does not eliminate the problem, but simply tries to alleviate some of its effects. The costs of such alleviations are very difficult to predict.

Recommendation

The first proposalof fitting a filter unit should be adopted since it has a lower cost.

The benefits of this proposal are:

(i) the complete elimination of the noxious emissions;
(ii) the main costs involved occur early in the project and are fixed or easy to predict accurately;
(iii) the company's reputation will be enhanced;
(iv) employee morale will be boosted.

The alternative proposal includes:

(i) costs which are less certain and may escalate in the future;
(ii) they leave M Ltd open to future attack, as the emissions will not be halted;
(iii) the company runs the risk of being forced to eliminate the emissions anyway, if the government so insists.

Signed: Management accountant

Workings and Appendices

Schedule A
Net present value of filter unit

Year		**Cashflow**	**DF at 12%**	**PV**
		K'000		**K'000**
0	Net cost of unit (50% x 4,400)	(2,200)	1.00	(2,200)
0	Plant shut down (W1)	(1,667)	1.00	(1,667)
1- 8	Loan repayments (W2)	(340)	4.97	(1,690)
1-10	Compensation no longer paid	(260)	5.65	1469
			NPV	**(4,088)**

Schedule B
Net present value of alternative proposal

Year		**Cashflow**	**DF at 12%**	**PV**
		K'000		**K'000**
0	Wildlife Sanctuary	(1,700)	1.00	(1,700)
1-10	Increased compensation	(300)	5.65	(1,695)
1-10	Increased donation	(200)	5.65	(1,130)
			NPV	(4,525)

WORKINGS
(W1) **Cost/ profit from plant shut down**

	K'million
Annual sales 2m x 20	40
Annual costs 2m x 10	(20)
Annual contribution	20

Monthly contribution = K20million/12 months = K1,666,667(1 mark)

(W2) ADB loan repayments
Annual repayment = K2.2m/Annuity Factor ($t_1 - t_8$)
= K2.2m/6.463
= K340, 399

(b)

MEMO

To: The Managing Director, M Ltd
From: Management Accountant
Date: XXXXXXXXX

In general terms, the environmental costs external to M Ltd are costs caused by the emission of noxious substances, incurred by bodies outside the company.

In more specific terms, the scenario describes these costs as damage to cars, vegetation and wildlife; the harm to certain crops from soil contamination; and breathing difficulties of local residents.

There are two ways to express such costs in monetary terms:

(i) The cost of compensating the residents for harm suffered, as in the second proposal of the question;
(ii) The cost of the eliminating the emissions, as in the first proposal.

The company is paying compensation claims at the moment, and an exercise would be carried out to cost expected future claims and any other 'goodwill' gestures such as those described in the question.

There may be more significant methods of compensation, however, the most extreme of which would be to offer to buy all property near the works and re-house the residents further away.

Alternatively, less major, actions would include:

(i) Providing all car owners with private garages and car parks in public places;

(iii) Funding research into ways of protecting local vegetation and wildlife, and into the development of crops which are not affected by the emissions;

(iv) Protecting residents by ensuring that they have sealed windows and air conditioners at home and at work.

All these projects could be costed and evaluated in using the standard methods for investment appraisal.

Turning to elimination of the emissions, again there is an extreme solution, which is to close down the plant. This decision could be evaluated by estimating cost contribution from external sales together with the cost of buying in the diesel. Redundancy payments would also have to be made.

Another option would be to move the plant to a more suitable area. The costs would be evaluated using usual investment appraisal methods.

As with the compensation option, there are less major projects which may be possible:

(i) Filter could be fitted
(ii) Research could be done into different processing techniques;

(iii) A different type of crude oil could be used as an input

(iv) If the emissions can be captured they could be further treated before being released into the atmosphere.

(v) Computerised controls may reduce unnecessary emissions caused by manual inefficiency.

Again, the costs of these solutions could be evaluated as standard investment appraisal exercises.

(c)

Memorandum

The Chairman – Mafuta Oil Plc
From: Accountant
Date: 14 February, 2025
Reference: Environmental audit of M Ltd's operations

The Mushili Residents' Action Committee has asked me to write to you, as chairman of Mafuta Oil plc.

It is the Committee's belief that M Ltd would benefit from carrying out a regular environmental audit of its operations. At present the company's works in Mushili area are emitting noxious substances, which damage paint work of cars, harm local vegetation and wildlife, contaminate soil, prevent cultivation of certain crops, and cause breathing difficulties in the Mushili population.

The company is paying compensation, but this is considered to be inadequate and unnecessarily difficult to obtain because of the excessive bureaucracy involved.

Not only is M Ltd earning a reputation of being an uncaring company and employer, as was evidenced by a recent media documentary, but it is also harming society in the long term by contributing to world pollution. The Committee feels sure that you will share its concern over these matters.

I am writing to you to ask for your help in persuading M Ltd to institute an environmental audit. Such an audit monitors:

(i) efficiency of use of raw materials, energy and other resources;
(ii) safe disposal of toxic waste and harmful effluents;
(iii) recycling of products and minimising waste
(iv) general pollution control and protection of the environment;
(v) employee health and safety; and
(vi) safety of the product when in use by consumers. *(3 marks)*

The benefits to the company lie in an improved reputation, possibly enhancing sales, a more healthy and satisfied workforce, a safer and more pleasant working environment and the likelihood of major cost savings arising from the increased efficiency in use of resources.

The action taken by the company could be made public by including an environment audit report in future annual reports. This will go further towards enhancing the company's reputation.

Signed: Accountant

SOLUTION TWO

(a) **Cost Management (ABC Implementation):**
- **Advantages:**
  - **More Accurate Cost Allocation:** ABC allows for a more precise allocation of overhead costs by associating costs with specific activities, providing a clearer picture of the cost structure and profitability of individual products.
  - **Informed Decision-Making:** ABC would provide KK Ltd management with better insights into cost drivers, which can lead to improved pricing strategies and more efficient resource allocation.
- **Challenges:**
  - **Implementation Cost and Complexity:** Introducing ABC requires significant time and resources for data collection, system redesign, and training, which could be costly and time-consuming for KK Ltd.
  - **Resistance to Change:** Employees and managers may resist the new system due to familiarity with the existing traditional costing methods.

(b) **Budgeting and Forecasting (Rolling Forecasts):**
- **Differences:**
  - **Traditional Budgeting:** This involves setting a fixed annual budget based on historical data, which is usually adjusted annually or at fixed intervals.
  - **Rolling Forecasts:** Provides continuous updates (typically quarterly or monthly) based on the most recent information, allowing the company to adjust its projections in response to changes in market conditions.
- **Benefits of Rolling Forecasts:**
  - **Adaptability:** Helps KKL Ltd to stay agile and responsive to external market changes, such as fluctuations in material costs and shifts in demand.
  - **Improved Accuracy:** By frequently updating forecasts, KKL Ltd. can better anticipate future performance better and make more informed decisions.

(c) **Performance Measurement (Non-Financial Metrics):**
- **Pros of Financial Metrics Alone:**
  - **Clarity and Simplicity:** Financial metrics like ROI and profit margin are easy to measure and provide a clear, standardized view of company performance.
  - **Alignment with Shareholder Expectations:** Financial results are often the most directly tied to shareholder value.

- **Cons of Relying Solely on Financial Metrics:**
    - **Short-Term Focus:** Financial measures often emphasize short-term results, potentially neglecting long-term sustainability and growth.
    - **Lack of Insight into Operational Performance:** Financial metrics alone may not provide insight into factors such as customer satisfaction, employee performance, or innovation.
- **Non-Financial Measures to Consider:**
    - **Customer Satisfaction:** Can be measured through surveys, Net Promoter Scores (NPS), or customer retention rates, providing insights into brand loyalty and market position.
    - **Employee Engagement:** Employee productivity and turnover rates can offer valuable information about the company's internal culture and its ability to innovate.
    - **Sustainability Metrics:** Tracking energy use, waste management, and environmental impact could align with modern trends toward corporate social responsibility (CSR).

SOLUTION THREE

(a) The project sponsor is the person whose overall authority requires and permits the project to be undertaken. Patricia will initiate the project.

Patricia will exercise general supervision over the progress of the project without becoming involved in the details of project management. This will involve giving approval to plans, budgets and specifications; receiving and approving progress reports and bids for changes. She will also ensure that a clear focus is maintained on the project's objectives and priorities.

A further possible role for the project sponsor is that of 'project champion', promoting and defending the project and providing moral support to the project manager, Demas, particularly when delays occur and problems arise.

Demas, as project manager is responsible to the project sponsor for the success of the project. This means delivering the required results in accordance with planned requirements for cost, time and quality. To do this, Demas must manage and lead the project team and may have a hand in its selection. He must also be responsible for the proper planning of the project; the management of the resources allocated to it; overall progress management and control; and reporting on progress to the project sponsor, Patricia.

Demas will also have to manage the expectation of the various stakeholders. These include Patricia Chileshe, the various headquarters groups that are involved in the move and any external contractors or consultants involved in the project. This is likely to involve extensive communication, negotiation and dispute resolution, especially when there are delays or changes of plan become necessary.

(b) (i) Knowledge Management (KM), also known as **content management or information management**, is a systematic process of identifying, organizing, storing, retrieving, and disseminating information within an organization to enhance efficiency and innovation.

Successful KM includes maintaining information in a place where it is easy to access. KM will address the MD's concern that considerable amount of time is wasted re-inventing the wheel.

The aim of knowledge management is to capture, organise and make widely available all the knowledge the organisation possesses, whether in recorded form or in people's heads. Recognition of the value of knowledge thus provoked the development of sophisticated IT systems.

Organisations possess a great deal of data, but much of it is disorganised and inaccessible.

KM technology helps structure data in a way that makes it easily accessible so that it can be used to support knowledge, convenient access to data for a wide variety of uses and users' needs.

(ii) Expert system

An **expert system (ES)** is a computer system emulating the decision-making ability of a human expert. Expert systems are designed to solve complex problems by reasoning through bodies of knowledge, represented mainly as " if–then rules" rather than through conventional procedural programming code.

In other words, it is a computer program that captures human expertise in a limited domain of knowledge. Such software uses a knowledge base that consists of facts, concepts and the relationships between them and uses pattern-matching techniques to solve problems.

ES can provide decision support in financial analysis. It will help PS Ltd's managers make better financial decisions, such as portfolio management, risk assessment, and market prediction.

Advantages of an expert system include: It efficiently provides quick solutions to queries; the error rate is considerably low; it is consistent in making recommendations; it is suitable for bringing up difficult-to-use knowledge sources; and, it can capture even the scarce expertise of a distinctively qualified expert.

(iii) Executive Information Systems (EIS)

An Executive Information System (EIS), also known as an Executive Support System (ESS), is a type of management support system that provides senior executives with easy access to summarized, relevant information from both internal and external sources to support strategic decision-making.

A more detailed explanation of the EIS is as follows:

- **Purpose:**

  EISs are designed to help top-level executives make informed decisions by providing a comprehensive overview of the organization's performance and the external environment.

- **Information Sources:**
  EISs gather data from various sources, including internal databases, external market data, and other relevant information.
- **Data Presentation:**
  The information is presented in a *summarized* and *easily digestible* format, often through *dashboards* or *reports,* allowing PS Ltd's executives to quickly identify trends and potential issues.
- **Strategic Focus:**
  EISs focus on *strategic issues* and *long-term goals* rather than day-to-day operational matters, which are typically handled by other management information systems.
- **Decision Support:**
  By providing timely and relevant information, EISs will enable PS Ltd's executives to make better-informed decisions that drive strategic success.

- **Examples of EIS:**
  An EIS could provide PS Ltd's executives with real-time data on sales performance, market trends, competitor activity, and financial health; thus, allowing them to make strategic decisions based on the most up-to-date information.

SOLUTION FOUR

(a) Many **multinational organizations** take a considered approach to measuring performance across different strategic business units as they are aware a comparison between different parts of a business may be misleading and can lead to decisions which reduce profitability and shareholder value as oppose to increase it.

Several complex problems must be resolved to ensure that using KPIs to control, measure and compare business performance between strategic business units (SBUs) remains an effective tool. Here we identify some of the problems in this area.

(1) Capital structure. Where foreign subsidiaries are financed partly by loans, the differing rates of interest in each country might affect the relative profitability of subsidiaries.

(2) Cost structure. Overseas subsidiaries may have a different operational gearing.

(3) Accounting policies. In each country, the subsidiary may adopt a different rate of depreciation so that profits and asset values are not comparable. Profits can be transformed into losses by accounting policies.

(4) Government policy. There will be differences in the levels of grants or concessions from the national government and in the rate of taxation and interest.

(5) Transfer prices for goods and services between the subsidiaries may be set in such a way as to improve the results of one subsidiary (or head office) at the expense of another (e.g. if goods are transferred from a subsidiary to head office at cost, the subsidiary will get no profit and the head office will obtain the goods at a low price).

(6) Workforce. A justification for expanding into developing countries is to take advantage of lower wages. However, an organization also needs to recognize cultural differences between countries.

(7) Risk. Some overseas operations may be a greater risk than others so that higher returns may be required from them.

(8) Life cycle. The same product may be at different stages in its product life cycle in each country.

(9) Transport. If a subsidiary in one country is performing much worse, and incurring higher unit costs of production than a comparable subsidiary in another country, it may still be uneconomic to switch production from one to the other because the extra costs of transport may exceed the savings in the costs of production.

(10) Domestic competition. The market of the overseas subsidiary may face a unique configuration of Porter's five forces.

(11) Different economic conditions. For some strategic business units (SBUs) achieving performance targets is more difficult due to challenging economic conditions whilst for others a performance target may be achieved comparatively easily. Often multinationals factor this in by flexing performance targets for certain SBUs.

(12) Realistic standards. It may be difficult to establish realistic standards for each different country. Performance standards should take account of local conditions, considering local opportunities as well as any restrictions on the activities of an operating unit in a particular country.

(13) Controllable cash flows. Care must be taken to determine which cash flows are controllable and to separate these from those outside the control of local management. In particular, the distortions caused by local taxation laws should be eliminated.

(14) Currency conversion. Considerable friction and difficulty in measuring performance can be caused by the use of inappropriate currency conversion rates. Furthermore, Exchange rate fluctuations may turn profits into losses and vice versa.

(15) Basis for comparison. Following on from the problem of setting realistic standards of performance, central management must exercise care when attempting to compare performance between the different countries.

(b) Information for establishing CSFs

The company can use information about the internal and external environment to set its CSFs. Relevant external information would include the structure of the industry and the strategy of TI’s competitors. The geographical location of the innovation and the main sales markets may also be relevant. The recognition of the innovation/product and the brand by the public would lead to success.

Relevant internal information would include measures of seasonality on sales which will dictate the timing of IT innovation releases and effectiveness of marketing campaigns. By forecasting the size of the market along with likely levels of competition, profit can be optimized. However, these forecasts will be subject to uncertainty and so the information systems will need to be flexible and allow probabilistic analysis. A CSF based on the quality of these forecasts would therefore be appropriate. Other internal sources could include measures of the cost per innovation and the time taken to develop the innovation.

Other possible information could include customer feedback and analytics: Data from surveys, product reviews, and social media sentiment analysis can highlight customer satisfaction levels and areas for improvement. For example, customer support ratings could guide initiatives to enhance post-purchase service.

(c) Performance indicators linked to the CSFs

Customer satisfaction - performance indicators are:

(i) Sales per product - These figures should be compared to industry averages. Trends on sales should be monitored for indications of changes in consumer taste.

(ii) Brand recognition - consumers should be surveyed to identify if the FP name is known and used as an indicator of quality when selecting films. If FP regularly uses certain artists (directors or film stars) then positive consumer recognition of these names will indicate satisfaction.

(iii) Response of the media - scores by critics often appear in the media and these give a measure of satisfaction although this category must be treated carefully as critics often look for artistic merit while TI is seeking commercial success and broad audience acceptance.

Profitability in operations– performance indicators are:

(i) Industry average margin – collect data on competitor companies to set an appropriate benchmark. This will require care to ensure that appropriate comparator companies are chosen, for example, those with a development budget similar to TI's of K21 million per innovation.

(ii) Time in development - the cost of an innovation will depend on the length of time it takes to develop. If the innovation is intended to meet a current customer demand it may require to be developed quickly, in order to meet revenue targets. Therefore, the time in development will affect both sales and cost levels so altering the gross margin. Again, it would be helpful to identify if innovations meet their development schedule and if these schedules compare favorably to those of other innovative companies.

(iii) Costs - the costs should be broken down into categories such as those for designers, developers (both software and hardware), manufacturing technicians, marketing and distribution. The cost structure for each innovation should be compared internally, to others that TI produces and also externally, to available figures for the industry.

(d) Impact on TI's information systems

The company website can collect audience survey results and comments posted on the site. This will allow a more detailed profile of the customer base for TI to be created and will be used to help in decisions about what products to commission in the future. The account members can be given the opportunity to score each product by providing further information about satisfaction.

The company could also consider scanning the websites of its competitors to identify their performance, especially their published results which will provide benchmark information on gross margin levels.

A management information system (MIS) will collate the information from individual transactions recorded in the accounting system to allow middle level management to control the business. This system will allow customer purchases to be summarized into reports to identify both innovations/products that sell well and the customers who provide the main sources of revenue (indicators of satisfaction). The level of repeat business on a customer account will give an indication of the satisfaction with TI's output. The system will also produce management accounts from which gross margins will be drawn and it should be capable of breaking this down by innovation and by customer to aid decision-making by targeting TI's output to the most profitable areas. This will aid decision-making about the performance of the development team on an innovation and can be used to set rewards for each team.

<u>SOLUTION FIVE</u>

(a) **Explanation of Transfer Pricing and its Importance:**

Transfer pricing refers to the pricing of goods, services, or intangible assets transferred between related entities within a multinational enterprise. It is important because it impacts the allocation of profits and taxes among different jurisdictions. Proper transfer pricing ensures that profits are allocated fairly and accurately, avoiding tax avoidance, double taxation, and disputes with tax authorities. Governments require MNEs to set transfer prices in a way that reflects an arm's length transaction, i.e., the price that would be charged between unrelated parties in similar circumstances.

(b) **Two Transfer Pricing Methods:**

Market price Method: This method involves comparing the price charged for similar products or services in transactions between unrelated parties. If a reliable comparable product can be found, the transfer price can be set based on these market prices.

Cost-Plus Method: Under this method, the transfer price is determined by adding a reasonable mark-up to the cost of production. This markup should reflect what an independent party would charge in a similar transaction. For example, if Global ABC's production cost for the components is K30, a markup of 20% could be applied, resulting in a transfer price of K36 per unit.

(c) **Profitability Calculation and Evaluation of Transfer Price:**

- **Global ABC's Profitability:**
  - Cost to produce the component: K30 per unit.
  - Transfer price to Global DEF: K50 per unit.
  - Profit per unit for Global ABC: K50 - K30 = K20.
- **Global DEF's Profitability:**
  - Cost to buy components from Global ABC: K50 per unit.
  - Assembly cost: K40 per unit.
  - Total cost for Global DEF per unit: K50 + K40 = K90.
  - Sale price to external customers: K200 per unit.
  - Profit per unit for Global DEF: K200 - K90 = K110.

Analysis of Transfer Price:

Global ABC's K50 per unit price generates a profit of K20 per unit. If the arm's length price based on market conditions (using methods like market price or Cost-Plus) would be significantly lower than K50, it might suggest that the current transfer price is too high, shifting profits disproportionately to Global ABC in country X.

The profitability of Global DEF in country Y seems high, and the authorities might view this as suspicious, especially if the components' market price would suggest a lower transfer price for Global ABC's components.

The current transfer price of K50 may be considered unreasonable if market conditions suggest a lower value, especially if a more accurate method like market price could bring the price closer to K36, resulting in a more balanced profit allocation between both entities.

(d) **Recommendations to Mitigate Tax Risks:**

- **Conduct a Transfer Pricing Study:** Global ABC should commission an independent transfer pricing study to identify the most appropriate transfer pricing method (market price, Cost-Plus, or another method) and demonstrate that the transfer price of K50 is consistent with market conditions.
- **Revisit Transfer Prices and Adjust if Necessary:** If the analysis shows that the transfer price should be lower, Global ABC may need to adjust the price for future transactions to reflect the arm's length principle.
- **Document the Methodology:** Global ABC should ensure that proper documentation is prepared, justifying the chosen transfer pricing method and pricing structure. This documentation can help defend the pricing against tax audits.
- **Engage with Tax Authorities:** To avoid a prolonged dispute, Global ABC could consider engaging proactively with the tax authorities in Country Y, explaining the pricing rationale and sharing the results of the transfer pricing study.

By taking these actions, Global ABC can mitigate the risk of an adjustment by the authorities in Country Y and demonstrate compliance with transfer pricing rules.

END OF SUGGESTED SOLUTIONS

Zambia Institute of Chartered Accountants

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA 3.6: ADVANCED FINANCIAL MANAGEMENT

FRIDAY 12 DECEMBER 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

KOSA Hotels Plc owns a chain of hotels and lodges across the country and in some neighboring countries. In the past three (3) years, the company has experienced a decline in revenue growth due to the country's collapsing economy caused by the energy crisis. According to the country's statistics, the hospitality industry was the worst hit and the situation has continued. There is uncertainty as to when the energy crisis will improve as quoted from a senior government official in the media.

The Board of KOSA Hotels Plc resolved to diversify into fish farming of exotic breed which can only be farmed in the country due to the conducive weather conditions. Further, the government is promoting the farming of this special exotic fish breed through different promotion schemes. This type of fish requires specialised skilled labour and feed.

The fish farming would commence immediately at the beginning of the first year and 110,000 tonne would be produced and sold each year for four (4) years. The directors of KOSA Hotels Plc expect to be able to charge a price of K15 per tonne during the first year and to increase the price from the second year to fourth year at an annual rate of 25%.

A tonne of fish will require ¼ hour of skilled labour and ½ hour of unskilled labour at the beginning of the year. The wage rates are K4,000 per hour for skilled labour and K3,000 per hour for unskilled labour. During the first year only KOSA Hotels Plc expects to have 100,000 surplus hours of unskilled labour. Whether or not the fish is produced, the employees concerned will be retained and paid by the company. All labour costs are expected to increase at an annual compound rate of 22%.

The fish project requires purchasing 100,000kgs of fingerings per month costing K500 per kg. The fish require special type of feed comprising of two ingredients, G1A and G2C which are mixed together to produce the required feed. KOSA Hotels Plc requires 250,000kgs of G1A and 150,000kgs of G2C per year. The current buying price is K600 per kg for G1A, while for G2C it is K2,150 per kg. The ingredients required to produce the feed must be purchased and paid for annually in advance.

The overhead current cost per tonne is K2,000 for the fish project and it is the policy of the company to allocate all overhead costs to its various products. The breakdown of the overhead cost per tonne for the fish project is as follows:

Description	**K**
Allocated head office fixed costs (rent, rates, administration, etc.)	900
Depreciation	500
Variable overheads	600
	2,000

All operational costs are expected to increase by 15% per year.

The investment cost required for the proposed project is K100 million. The treasury department for KOSA Hotels Plc expects to finance the project entirely by debt, 60% of which will be obtained from a subsidised loan scheme run by the Government, which lends money at a rate of 100 basis points below the ten (10) year Government debt yield rate of 2.5%. Issue costs related to raising the finance are 2% of the gross finance required. The remaining 40% will be funded from KOSA Hotels Plc's normal borrowing sources from the financial market. It can be assumed that the debt capacity available to KOSA Hotels Plc is equal to the actual amount of debt finance raised for the project.

KOSA Hotels Plc has identified a company, Moba Fishing Co, which operates in the same line of business as that of the project it is considering. Moba Fishing Co is financed by 40 million shares trading at K3.50 each and K45 million debt trading at K95 per K100 nominal. Moba Fishing Co.'s equity beta is estimated at 1.5. The current risk free rate of return is 6.3% and it is estimated that the market return is 14%. The applicable corporate tax rate is 20%. Kosa hotels is not expected to pay tax on the profits earned on the fish farming project due to a waiver by the government.

Required:

Assuming the role of a financial consultant, write a report to the board addressing the following:

(a) Evaluate the financial viability of the proposed fish project using the adjusted present value method. (34 marks)

(b) Discuss the importance of financial markets. (6 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt any THREE (3) questions.

<u>QUESTION TWO</u>

DOX Ltd imports majority of its raw material from other foreign countries and also exports the final products. It is the company policy to receive and make payments in foreign currency using the British pound sterling account. Recently, the company was invoiced $350,000 for its imports payable in October. The management of DOX Ltd are concerned about the foreign currency risk due to fluctuations in the exchange rates. They resolved to hedge the exposure of import payments to currency risk using futures contracts. Meanwhile, the exports are invoiced in different foreign currencies. The following extracts were obtained from a forex market:

$/£ spot rate 1.8501 – 1.8521

October forward 1.8001 – 1.8015

December £ futures $1.80

Futures contract size £12,500 = 1£

Required:

(a) Illustrate how a futures market hedge would be carried out, and the result in October of the futures market hedge, if the $/£ spot turned out to be $1.6000 – $1.6020, and December £ futures were then priced at $1.60. (12 marks)

(b) Discuss two (2) advantages and disadvantages to DOX Ltd of invoicing an export sale in a foreign currency. (8 marks)

[Total: 20 Marks]

QUESTION THREE

Minex is a listed international corporation. The equity beta of Minex is 0.8, and the company has issued 19.25 million ordinary shares. The market value of each ordinary share of Minex is K8.00.

Minex is also financed by 8% bonds with a nominal value of K100 per bond. The total nominal value of the bonds is K20 million and will be redeemed in eight years' time at their nominal value. The Interest on the bonds has just been paid, and the ex-interest market price of each bond is K110.

Minex plans to invest in a solar energy project, which is different to its current line of business, and has identified a company in the same industry as the solar energy project, Voltics Plc. The equity beta of Voltics Plc is 1.1 and has an equity market value of K84 million. The market value of Voltics Plc's debt is K14 million.

The risk-free rate of return is 10% per year and the average return on the stock market is 28% per year. Both Minex and Voltics Plc pay corporation tax at the rate of 30% per year.

Required:

(a) For Minex to appraise the solar energy project, determine the following:

(i) Its cost of equity (K_e), and (7 marks)

(ii) Cost of debt (K_d). (3 marks)

(b) Compute the current weighted average cost of capital (WACC) of Minex. (2 marks)

(c) Explain the difference between systematic and unsystematic risk in relation to the capital asset pricing model (CAPM). (4 marks)

(d) Discuss the following methods of adjusting for risk and uncertainty in investment appraisal:

(i) Adjusted payback; (2 marks)

(ii) Risk-adjusted discount rates. (2 marks)

[Total: 20 Marks]

QUESTION FOUR

ALIP Ltd is a subsidiary company of a UK based company, ALIPED Group Plc. ALIP imports most of its raw materials from across the globe. ALIPED maintains a centralised treasury management through its head office in the UK. All foreign transactions are settled by the treasury unit at the head office. ALIP Ltd owes a US supplier $2.5 million payable in June.

The spot rate is $/£ 1.5860 – 1.5880, and the management is concerned that the $USD might strengthen. The treasury unit is considering hedging the exposure to the currency risk using traded currency options.

Traded options are available at prices as shown in the following table:

$/£ Options £31,250 (cents per £1)

	Calls			Puts		
Strike price	May	Jun	Jul	May	Jun	Jul
1.576	1.65	2.57	3.04	0.24	1.31	1.96
1.551	3.93	4.28	4.66	0.12	0.59	0.99
1.526	6.39	6.44	6.59	0.11	0.26	0.57
1.515	6.51	6.65	6.73	0.09	0.19	0.49

Required:

(a) Discuss the appropriateness of using currency options by the Treasury unit of ALIPED to hedge against currency risk exposure. (8 marks)

(b) Illustrate how traded $/£ currency options can be used to hedge the risk at 1.576. (7 marks)

(c) Show what will happen if the spot rate in June is $/£1.5101 – 1.5122. (5 marks)

[Total: 20 Marks]

QUESTION FIVE

Free trade exists where there is no restriction on imports from other countries or exports to other countries. In practice, however, there exist many barriers to free trade because of various reasons by respective Governments. For instance, the United States of America recently announced tariffs on Canadian goods, which have sparked significant discussions. These tariffs include a 10% levy on energy imports and a 25% tariff on all other imports from Canada, effective March 4, 2025. The U.S. administration cited concerns over border security and illegal drug flow as reasons for these measures.

In response, Canada has introduced counter-tariffs of 25% on $30 billion worth of U.S. goods, with plans to expand this to $155 billion if the U.S. tariffs persist. Canada emphasized that these measures aim to protect Canadian interests and jobs.

The protectionist measures imposed by Government have the potential to affect the economic performance of countries. However, popular demand for protection usually exceeds what governments are prepared to allow.

Required:

(a) Discuss four (4) merits and demerits of protectionist measures imposed by Governments. (12 marks)

(b) Assess four (4) effects of tariffs imposed by protectionist Government policies on currency risk and capital investments. (8 marks)

[Total: 20 Marks]

END OF PAPER

Formulae

Modigliani and Miller Proposition 2 (with tax)

$$k_e = k_e^i + (1 - T)(k_e^i - k_d)\frac{V_d}{V_e}$$

Two asset portfolio

$$s_p = \sqrt{w_a^2 s_a^2 + w_b^2 s_b^2 + 2w_a w_b r_{ab} s_a s_b}$$

The Capital Asset Pricing Model

$$E(r_i) = R_f + \beta_i (E(r_m) - R_f)$$

The asset beta formula

$$\beta_a = \left[\frac{V_e}{(V_e + V_d(1 - T))}\beta_e\right] + \left[\frac{V_d(1 - T)}{(V_e + V_d(1 - T))}\beta_d\right]$$

The Growth Model

$$P_o = \frac{D_o(1 + g)}{(r_e - g)}$$

Gordon's growth approximation

$$g = br_e$$

The weighted average cost of capital

$$WACC = \left[\frac{V_e}{V_e + V_d}\right]k_e + \left[\frac{V_d}{V_e + V_d}\right]k_d(1 - T)$$

The Fisher formula

$$(1 + i) = (1 + r)(1 + h)$$

Purchasing power parity and interest rate parity

$$S_1 = S_0 x \frac{(1 + h_c)}{(1 + h_b)} \qquad F_0 = S_0 x \frac{(1 + i_c)}{(1 + i_b)}$$

Modified Internal Rate of Return

$$MIRR = \left[\frac{PV_R}{PV_I}\right]^{\frac{1}{n}} \left(1 + r_e\right) - 1$$

The Black-Scholes option pricing model

$$c = P_a N(d_1) - P_e N(d_2) e^{-rt}$$

Where:

$$d_1 = \frac{\ln(P_a / P_e) + (r + 0.5s^2)t}{s\sqrt{t}}$$

$$d_2 = d_1 - s\sqrt{t}$$

The Put Call Parity relationship

$$p = c - P_a + P_e e^{-rt}$$

Present Value Table

Present value of 1 i.e. $(1 + r)^{-n}$

Where r = discount rate
n = number of periods until payment

Discount rate (r)

Periods (n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0·990	0·980	0·971	0·962	0·952	0·943	0·935	0·926	0·917	0·909	1
2	0·980	0·961	0·943	0·925	0·907	0·890	0·873	0·857	0·842	0·826	2
3	0·971	0·942	0·915	0·889	0·864	0·840	0·816	0·794	0·772	0·751	3
4	0·961	0·924	0·888	0·855	0·823	0·792	0·763	0·735	0·708	0·683	4
5	0·951	0·906	0·863	0·822	0·784	0·747	0·713	0·681	0·650	0·621	5
6	0·942	0·888	0·837	0·790	0·746	0·705	0·666	0·630	0·596	0·564	6
7	0·933	0·871	0·813	0·760	0·711	0·665	0·623	0·583	0·547	0·513	7
8	0·923	0·853	0·789	0·731	0·677	0·627	0·582	0·540	0·502	0·467	8
9	0·941	0·837	0·766	0·703	0·645	0·592	0·544	0·500	0·460	0·424	9
10	0·905	0·820	0·744	0·676	0·614	0·558	0·508	0·463	0·422	0·386	10
11	0·896	0·804	0·722	0·650	0·585	0·527	0·475	0·429	0·388	0·305	11
12	0·887	0·788	0·701	0·625	0·557	0·497	0·444	0·397	0·356	0·319	12
13	0·879	0·773	0·681	0·601	0·530	0·469	0·415	0·368	0·326	0·290	13
14	0·870	0·758	0·661	0·577	0·505	0·442	0·388	0·340	0·299	0·263	14
15	0·861	0·743	0·642	0·555	0·481	0·417	0·362	0·315	0·275	0·239	15

(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0·901	0·893	0·885	0·877	0·870	0·862	0·855	0·847	0·840	0·833	1
2	0·812	0·797	0·783	0·769	0·756	0·743	0·731	0·718	0·706	0·694	2
3	0·731	0·712	0·693	0·675	0·658	0·641	0·624	0·609	0·593	0·579	3
4	0·659	0·636	0·613	0·592	0·572	0·552	0·534	0·516	0·499	0·482	4
5	0·593	0·567	0·543	0·519	0·497	0·476	0·456	0·437	0·419	0·402	5
6	0·535	0·507	0·480	0·456	0·432	0·410	0·390	0·370	0·352	0·335	6
7	0·482	0·452	0·425	0·400	0·376	0·354	0·333	0·314	0·296	0·279	7
8	0·434	0·404	0·376	0·351	0·327	0·305	0·285	0·266	0·249	0·233	8
9	0·391	0·361	0·333	0·308	0·284	0·263	0·243	0·225	0·209	0·194	9
10	0·352	0·322	0·295	0·270	0·247	0·227	0·208	0·191	0·176	0·162	10
11	0·317	0·287	0·261	0·237	0·215	0·195	0·178	0·162	0·148	0·135	11
12	0·286	0·257	0·231	0·208	0·187	0·168	0·152	0·137	0·124	0·112	12
13	0·258	0·229	0·204	0·182	0·163	0·145	0·130	0·116	0·104	0·093	13
14	0·232	0·205	0·181	0·160	0·141	0·125	0·111	0·099	0·088	0·078	14
15	0·209	0·183	0·160	0·140	0·123	0·108	0·095	0·084	0·074	0·065	15

Annuity Table

Present value of an annuity of 1 i.e. $\frac{1 - (1 + r)^{-n}}{r}$

Where r = discount rate
n = number of periods

Discount rate (r)

Periods (n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0·990	0·980	0·971	0·962	0·952	0·943	0·935	0·926	0·917	0·909	1
2	1·970	1·942	1·913	1·886	1·859	1·833	1·808	1·783	1·759	1·736	2
3	2·941	2·884	2·829	2·775	2·723	2·673	2·624	2·577	2·531	2·487	3
4	3·902	3·808	3·717	3·630	3·546	3·465	3·387	3·312	3·240	3·170	4
5	4·853	4·713	4·580	4·452	4·329	4·212	4·100	3·993	3·890	3·791	5
6	5·795	5·601	5·417	5·242	5·076	4·917	4·767	4·623	4·486	4·355	6
7	6·728	6·472	6·230	6·002	5·786	5·582	5·389	5·206	5·033	4·868	7
8	7·652	7·325	7·020	6·733	6·463	6·210	5·971	5·747	5·535	5·335	8
9	8·566	8·162	7·786	7·435	7·108	6·802	6·515	6·247	5·995	5·759	9
10	9·471	8·983	8·530	8·111	7·722	7·360	7·024	6·710	6·418	6·145	10
11	10·37	9·787	9·253	8·760	8·306	7·887	7·499	7·139	6·805	6·495	11
12	11·26	10·58	9·954	9·385	8·863	8·384	7·943	7·536	7·161	6·814	12
13	12·13	11·35	10·63	9·986	9·394	8·853	8·358	7·904	7·487	7·103	13
14	13·00	12·11	11·30	10·56	9·899	9·295	8·745	8·244	7·786	7·367	14
15	13·87	12·85	11·94	11·12	10·38	9·712	9·108	8·559	8·061	7·606	15

(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0·901	0·893	0·885	0·877	0·870	0·862	0·855	0·847	0·840	0·833	1
2	1·713	1·690	1·668	1·647	1·626	1·605	1·585	1·566	1·547	1·528	2
3	2·444	2·402	2·361	2·322	2·283	2·246	2·210	2·174	2·140	2·106	3
4	3·102	3·037	2·974	2·914	2·855	2·798	2·743	2·690	2·639	2·589	4
5	3·696	3·605	3·517	3·433	3·352	3·274	3·199	3·127	3·058	2·991	5
6	4·231	4·111	3·998	3·889	3·784	3·685	3·589	3·498	3·410	3·326	6
7	4·712	4·564	4·423	4·288	4·160	4·039	3·922	3·812	3·706	3·605	7
8	5·146	4·968	4·799	4·639	4·487	4·344	4·207	4·078	3·954	3·837	8
9	5·537	5·328	5·132	4·946	4·772	4·607	4·451	4·303	4·163	4·031	9
10	5·889	5·650	5·426	5·216	5·019	4·833	4·659	4·494	4·339	4·192	10
11	6·207	5·938	5·687	5·453	5·234	5·029	4·836	4·656	4·486	4·327	11
12	6·492	6·194	5·918	5·660	5·421	5·197	4·988	4·793	4·611	4·439	12
13	6·750	6·424	6·122	5·842	5·583	5·342	5·118	4·910	4·715	4·533	13
14	6·982	6·628	6·302	6·002	5·724	5·468	5·229	5·008	4·802	4·611	14
15	7·191	6·811	6·462	6·142	5·847	5·575	5·324	5·092	4·876	4·675	15

Standard normal distribution table

	0·00	0·01	0·02	0·03	0·04	0·05	0·06	0·07	0·08	0·09
0·0	0·0000	0·0040	0·0080	0·0120	0·0160	0·0199	0·0239	0·0279	0·0319	0·0359
0·1	0·0398	0·0438	0·0478	0·0517	0·0557	0·0596	0·0636	0·0675	0·0714	0·0753
0·2	0·0793	0·0832	0·0871	0·0910	0·0948	0·0987	0·1026	0·1064	0·1103	0·1141
0·3	0·1179	0·1217	0·1255	0·1293	0·1331	0·1368	0·1406	0·1443	0·1480	0·1517
0·4	0·1554	0·1591	0·1628	0·1664	0·1700	0·1736	0·1772	0·1808	0·1844	0·1879
0·5	0·1915	0·1950	0·1985	0·2019	0·2054	0·2088	0·2123	0·2157	0·2190	0·2224
0·6	0·2257	0·2291	0·2324	0·2357	0·2389	0·2422	0·2454	0·2486	0·2517	0·2549
0·7	0·2580	0·2611	0·2642	0·2673	0·2704	0·2734	0·2764	0·2794	0·2823	0·2852
0·8	0·2881	0·2910	0·2939	0·2967	0·2995	0·3023	0·3051	0·3078	0·3106	0·3133
0·9	0·3159	0·3186	0·3212	0·3238	0·3264	0·3289	0·3315	0·3340	0·3365	0·3389
1·0	0·3413	0·3438	0·3461	0·3485	0·3508	0·3531	0·3554	0·3577	0·3599	0·3621
1·1	0·3643	0·3665	0·3686	0·3708	0·3729	0·3749	0·3770	0·3790	0·3810	0·3830
1·2	0·3849	0·3869	0·3888	0·3907	0·3925	0·3944	0·3962	0·3980	0·3997	0·4015
1·3	0·4032	0·4049	0·4066	0·4082	0·4099	0·4115	0·4131	0·4147	0·4162	0·4177
1·4	0·4192	0·4207	0·4222	0·4236	0·4251	0·4265	0·4279	0·4292	0·4306	0·4319
1·5	0·4332	0·4345	0·4357	0·4370	0·4382	0·4394	0·4406	0·4418	0·4429	0·4441
1·6	0·4452	0·4463	0·4474	0·4484	0·4495	0·4505	0·4515	0·4525	0·4535	0·4545
1·7	0·4554	0·4564	0·4573	0·4582	0·4591	0·4599	0·4608	0·4616	0·4625	0·4633
1·8	0·4641	0·4649	0·4656	0·4664	0·4671	0·4678	0·4686	0·4693	0·4699	0·4706
1·9	0·4713	0·4719	0·4726	0·4732	0·4738	0·4744	0·4750	0·4756	0·4761	0·4767
2·0	0·4772	0·4778	0·4783	0·4788	0·4793	0·4798	0·4803	0·4808	0·4812	0·4817
2·1	0·4821	0·4826	0·4830	0·4834	0·4838	0·4842	0·4846	0·4850	0·4854	0·4857
2·2	0·4861	0·4864	0·4868	0·4871	0·4875	0·4878	0·4881	0·4884	0·4887	0·4890
2·3	0·4893	0·4896	0·4898	0·4901	0·4904	0·4906	0·4909	0·4911	0·4913	0·4916
2·4	0·4918	0·4920	0·4922	0·4925	0·4927	0·4929	0·4931	0·4932	0·4934	0·4936
2·5	0·4938	0·4940	0·4941	0·4943	0·4945	0·4946	0·4948	0·4949	0·4951	0·4952
2·6	0·4953	0·4955	0·4956	0·4957	0·4959	0·4960	0·4961	0·4962	0·4963	0·4964
2·7	0·4965	0·4966	0·4967	0·4968	0·4969	0·4970	0·4971	0·4972	0·4973	0·4974
2·8	0·4974	0·4975	0·4976	0·4977	0·4977	0·4978	0·4979	0·4979	0·4980	0·4981
2·9	0·4981	0·4982	0·4982	0·4983	0·4984	0·4984	0·4985	0·4985	0·4986	0·4986
3·0	0·4987	0·4987	0·4987	0·4988	0·4988	0·4989	0·4989	0·4989	0·4990	0·4990

This table can be used to calculate $N(d)$, the cumulative normal distribution functions needed for the Black-Scholes model of option pricing. If $d_i > 0$, add 0·5 to the relevant number above. If $d_i < 0$, subtract the relevant number above from 0·5.

CA3.6 ADVANCED FINANCIAL MANAGEMENT

SUGGESTED SOLUTION

SOLUTION ONE

(a) Financial Evaluation of Fish Production Project

Year	0	1	2	3	4
	K'm	K'm	K'm	K'm	K'm
Sales (1)	-	1,650	2,062.5	2,575.13	3,222.7
Labour (2)	-	(100)	(305)	(372.1)	(453.96)
Fish Feed:					
GIA (3)	(150)	(172.5)	(198.38)	(228.13)	-
G2C (4)	(322.5)	(370.88)	(426.51)	(490.48)	-
Finger ringers	(600)	(790)	(793.5)	(912.53)	-
Overheads (4)	-	(66)	(75.9)	(87.29)	(100.38)
Investment cost	(100)	-	-	-	-
Net inflow/(outflow)	(1,172.5)	150.62	263.21	484.60	2,668.36
Discount@16%	1.000	0.862	0.743	0.641	0.552
Present values	**(1,172.5)**	**129.83**	**195.57**	**310.63**	**1,472.93**
NPV = K936.46 million					

WORKINGS

(1) Sales

The selling price rises at 10% per annum

		K'000
Year 1	cost 110,000 x 1,000x K15	= K1,650,000
Year 2	cost K1,650,000 x 1.25	= K2, 062,500
Year 3	cost K2, 062,500 x 1.25	= K2, 578,125
Year 4	cost K2, 578,125 x 1.25	= K3,222,656.25

(2) Labour cost K'000

Year 1	Skilled 25,000 hours @ K4	100,000
	Unskilled No cost incurred	-
	Total	**100,000**
Year 2	Skilled 25,000 x (K4 x 1.22)	122,000
	Unskilled 50,000 x (K3 x 1.22)	183,000
	Total	**305,000**
Year 3	Skilled & unskilled 305,000 x 1.22	**372,100**
Year 4	Skilled & unskilled 372,100 x 1.22	**453,962**

(3) G1A ingredient

Current buying price is K0.6 per kg, rising at 15% per annum.

K'000
Year 0 cost K600 x 250,000 = K150,000
Year 1 cost K150,000 x 1.15 = K172,500
Year 2 cost K172,500x 1.15 = K198,375
Year 3 cost K198,375 x 1.15 = K228,131.25

(4) G2C ingredient

Year 0 buying price K150,000 x K2.15	= K322,500
Year 1 buying price K322,500x 1.15	= K370,875
Year 2 buying price K370,875 x 1.15	= K426,506.25
Year 3 buying priceK426,506.25x 1.15	= K490,482.19

(5) Finger ringers

	K'000
Year 0 100,000 x 500 x 12	=K600,000
Year 1 K600,000 x 1.15	= K690,000
Year 2 K690,000 x 1.15	= K793,500
Year 3 K793,500 x 1.15	=K 912,525

(6) Overheads

The only relevant costs are variable overheads, which rise at 15% per annum.

		K'000
Year 1	cost 110,000 x K0.6	= K66,000
Year 2	cost K66,000 x 1.15	= K75,900
Year 3	cost K75,900 x 1.15	= K87,285
Year 4	cost K87,285 x 1.15	= K100,377.75

(7) <u>Cost of ungeared equity</u>

$$\beta a = \left(\frac{Ve}{(Ve + Vd(1-t))}\right)\beta e + \left(\frac{Vd(1-t)}{(Ve + Vd(1-t))}\right)\beta d$$

Assuming the beta of debt = 0, Delta Co's asset beta =

βa = 1.51 x 140/140+42.75(1-0.2)

βa =1.21

Cost of ungeared equity = 6.3%+1.21(14%-6.3%) = 16%

Km

(1) Issue costs 2/98 × K100m (2.04)

(2) Tax shield = PV tax saved on interest payments, discounted at gross Kd = 6.3%
Annual tax relief =
On the subsidized loan = K100m × 60% × 0.015 × 20% = K0.18
On the rest of the loan = K100m × 40% × 0.04 × 20% = K0.32
Total = 0.18 + 0.32 = K0.5m p.a. for 4 years
This is discounted at the risk-free rate of 6.3%
The present value of the tax relief = 0.5 × 3.441 (4yr 4% annuity factor)
1.72

(3) PV of annual subsidy benefit for 4 years :
K100m × 60% × 0.015 × 80% = K0.72m
The present value of the subsidy benefit annuity = K0.72m × 3.441
(4yr 4% annuity factor) <u>2.48</u>
<u>2.16</u>

(4) Remember, APV = base case NPV at Ke ungeared + PV tax saved on interest payments + PV benefit of loan subsidy (after tax) – issue costs of new debt. So, APV = K936.46m + K1.72m + K2.48m – K2.04m = K938.62m

Financing the project entirely by debt would add K2.16 million to the value of the project. The project should be accepted because it provides an APV of K938.62m. This means that the wealth of shareholders would increase by this amount.

Annuity Factor= $\frac{1-(1+r)^{-n}}{r}$

$$= \frac{1-(1+0.63)^{-4}}{0.063}$$

$=3.441$

(b) **Importance of Financial Markets**

(i) Capital Formation: Financial markets help in the accumulation of capital by providing a platform for individuals and institutions to invest their savings in various financial instruments like stocks, bonds, and mutual funds.

(ii) Liquidity: They provide liquidity to assets, allowing investors to buy and sell securities easily. This liquidity ensures that investors can convert their investments into cash quickly when needed.

(iii) Price Discovery: Financial markets help in determining the prices of financial instruments through the forces of supply and demand. This price discovery mechanism ensures that securities are fairly valued.

(iv) Risk Management: They offer various financial instruments like derivatives that help investors manage and hedge against risks. For example, options and futures contracts can be used to protect against price fluctuations.

(v) Efficient Allocation of Resources: Financial markets allocate resources efficiently by directing funds to the most productive uses. This ensures that capital is invested in projects and companies that have the potential for growth and profitability.

(vi) Economic Growth: By facilitating investment and capital formation, financial markets contribute to overall economic growth and development.

(vii) Information Dissemination: They provide valuable information to investors and companies through market data, financial reports, and analysis. This information helps in making informed investment decisions.

(viii) Divisibility and flexibility- different requirements by lenders and borrowers, but financial markets pool and channel resources to borrowers in different amounts.

(ix) Diversification of risk

(x) Maturity

(xi) Expertise and convenience

SOLUTION TWO

(a) DOX Ltd requires protection against a weakening £. As the $ strengthened to $1.6000 = £1 by October, he would have to pay ($350,000 ÷ 1.6000) £218,750 to clear the obligation.

Obviously the company could protect exposure to foreign exchange risk by SELLING 17 (218,750/12,500) December £ futures contracts NOW at $1.80, and then closing his position by BUYING a similar number of December £ futures when the price has moved to $1.60.

Clearly the ($0.20 x £12,500) $2,500 gain on each of the 17 futures contracts i.e. $42,500 would be converted at the then spot rate $1.6000 to provide £26,562.5, which would compensate for the adverse movement on the foreign exchange market i.e.

CASH MARKET £	
Payment to supplier ($350,000 ÷ 1.6000) = (£218,750)	
FUTURES MARKET	$
Now: SELL 17 contracts	1.80
In October: BUY 17 contracts	1.60
Gain per £	$0.20
Total Gain (17 x $0.20 x £12,500) = $42,500 In £: ($42,500 ÷ 1.6000) = £26,562.50	
£1 **Total Cost** **(£192,187.50)**	

(b) When a company invoices sales in a currency other than its own, the amount of 'home' currency it will eventually receive is uncertain. This may be an advantage or a disadvantage, depending on changes in the exchange rate over the period between invoicing and receiving payment. With this in mind, invoicing in a foreign currency has the following advantages.

(i) The foreign customer will find the deal more attractive than a similar one in the exporter's currency, since the customer will bear no foreign exchange risk. Making a sale will therefore be that much easier.

(ii) The exporter can take advantage of favourable foreign exchange rate movements by selling the exchange receipts forward (for more of the home currency than would be obtained by conversion at the spot rate).

(iii) In some countries, the importer may find it difficult or even impossible to obtain the foreign exchange necessary to pay in the exporter's currency. The willingness of the exporter to sell in the importer's currency may therefore prevent the sale falling through.

The disadvantages of making export sales in foreign currency are the reverse of the advantages.

(i) The exporter (rather than the foreign customer) bears the foreign exchange risk.

(ii) If the exchange rate movement is unfavorable, the exporter's profit will be reduced.

SOLUTION THREE

(a) Calculation of (K_e), and cost of debt (K_d), (b) Determination of WACC for Minex

	Minex	Voltics Plc
Market Value of Equity	154 million (19.25m x 8.00)	84 million
Market Value of Debt	22 million (20/100 x 110)	14 million
Total Value of Equity + Debt	176 million	98 million
Equity: Debt Ratio	7:1	6:1
Equity Beta - β_e	0.8	1.1
Risk Free Rate - R_f	10%	10%
Average Return on Stock Market – R_m	28%	28%
Corporation Tax Rate - T	30%	30%

Step 1

Voltics Plc's Equity Beta = 1.1

Step 2

Based on the information of the solar energy industry ,which has a beta equity of 1.1 and gearing ratio of 6:1, de – gear the beta equity of Voltics Plc, in order to find the beta asset of its industry.

$B_a = B_e \quad x \ \frac{Ve}{Ve+Vd(1-T)} = 1.1 \text{ x } \frac{6}{6+1(1-0.30)} = 1.1 \text{ x } 0.90 = \underline{\mathbf{0.99}}$

Step 3

Having determined the beta asset for Voltics Plc , calculate the equity beta of the solar energy project , by re – gearing or incorporating the financial risk of Minex 's gearing ratio of 7:1

Given that $B_a = 0.99$

$0.99 = B_e \quad x \ \frac{7}{7+1(1-0.3)}$

$0.99 = 0.91 \text{ x } B_e$

$B_e = \frac{0.99}{0.91} = \underline{\mathbf{1.09}}$

Step 4

(a) Cost of equity of the project based on CAPM:

Ke = $R_f + B_e (R_{m} - R_f)$ = 10%+ 1.09 (28% - 10%) = 10%+ 1.09 (18%) = 29.6%

Step 5

(a) Cost of debt for Minex as the IRR of its redeemable debt is follows:

Year	Naration	Cash flow	2% discount	PV (K)	5% discount	PV (K)
0	Market value	-110	1.000	-110	1.000	-110
1 – 8	Coupon@'5.6 [8*(1 - 0.3)]	5.60	7.325	41.02	6.463	36.19
8	Redemption	100.00	0.853	85.3	0.677	67.7
NPV				16.32		-6.11

IRR = [2% + [(16.81))/(16.81 + 6.11)] x (5% - 2%)

K_d = 4.2%

Coupon payments are stated after – tax, therefore the K_d does not need to be adjusted for taxation.

Step 6

Computation of the risk – adjusted WACC of the solar energy project, using Minex's debt to equity (D:E) ratio:

(b) WACC = $\left(29.6\,\% \quad x \ \frac{7}{8}\right) + \left(4.2\% \quad x \ \frac{1}{8}\right)$ = **26.4%**

(c) In portfolio theory and the Capital Asset Pricing Model (CAPM), risk is categorized into two types:

(i) **Systematic Risk:** (also known as Market Risk):
- This type of risk is inherent to the overall market and cannot be diversified away.
- It is measured by a stock's beta (β), which represents its sensitivity to market movements.
- Systematic risk is rewarded with a risk premium, as investors demand higher returns for taking on more market risk.

(ii) **Unsystematic Risk**: (also known as Diversifiable Risk):
- This type of risk is specific to an individual stock or asset and can be reduced through diversification.
- It is caused by factors unique to the company or industry, such as management decisions, industry changes, or company-specific events.
- Unsystematic risk is not rewarded with a risk premium, as it can be eliminated through diversification.

The key differences between systematic and unsystematic risk are:

- Diversifiability: Systematic risk cannot be diversified away, while unsystematic risk can be reduced through diversification.
- Reward: Systematic risk is rewarded with a risk premium, while unsystematic risk is not.
- Measurement: Systematic risk is measured by beta (β), while unsystematic risk is measured by the standard deviation of returns.

According to CAPM, a portfolio's expected return is a function of its beta (systematic risk) and the market return. The model suggests that investors should focus on systematic risk when making investment decisions, as it is the primary driver of expected returns.

By diversifying a portfolio, investors can minimize unsystematic risk and maximize returns for a given level of systematic risk. This is the core principle of modern portfolio theory.

(d)

Sensitivity Analysis

This method involves analysing how changes in key variables would impact the investment’s outcome. Sensitivity analysis can help in identifying which variables could have the greatest impact on the success of the solar energy project. By adjusting these variables within a reasonable range, investors can assess the potential risks and rewards.

(i) Discounted Payback:

This method adjusts the payback period by considering the risk of the project. It calculates the payback period using the expected cash flows, but then adjusts it by a risk factor, which is based on the project's risk level. For example, a project with high risk might have a payback period adjusted upwards by 10-20% to account for the increased uncertainty.

(ii) Risk-Adjusted Discount Rates:

This method adjusts the discount rate used in the net present value (NPV) calculation to reflect the project's risk level. A higher discount rate is used for projects with higher risk, which reduces the NPV and makes the project less attractive. This method is based on the concept of risk-return trade - off, where investors demand higher returns for taking on more risk.

Both methods aim to incorporate risk and uncertainty into investment appraisal, but they approach it differently. Adjusted payback focuses on the payback period, while risk-adjusted discount rates affect the NPV calculation.

SOLUTION FOUR

(a) The main purpose of currency options is to reduce exposure to adverse currency movements, while allowing the holder to profit from favourable currency movements. They are particularly useful for companies in the following situations:

(i) Where there is uncertainty about foreign currency receipts or payments, either in timing or amount. Should the foreign exchange transaction not materialise, the option can be sold on the market (if it has any value) or exercised if this would make a profit.

(ii) To support the tender for an overseas contract, priced in a foreign currency.

(iii) To allow the publication of price lists for its goods in a foreign currency.

(iv) To protect the import or export of price-sensitive goods. If there is a favourable movement in exchange rates, options allow the importer/exporter to profit from the favourable change (unlike forward exchange contracts, when the importer/exporter is tied to a fixed rate of exchange by the binding contract). This means that the gains can be passed on in the prices to the importer's or exporter's customers.

(b) **Currency Options Illustration**

(i) Sell put options
(ii) Type: June
(iii) Strike price of 1.576
(iv) Number of Contracts: $2,500,000 ÷ 1.576 ÷ 31,250 = 50
(v) Premium amount: 50 × 31,250 × 0.0131 = $ 20,468.75
(vi) Premium conversion to £: $20,468.75 ÷ 1.5860 = £12,905.90 (payable now)

(c) In June:

Underlying transaction =	$2,500,000 ÷ 1.5101 =	£1,655,519.50
Profits on options:		
50 × 31,250 × (1.5760 – 1.5101) = $102,968.75 ÷ 1.5122 =		£<u>68,092.018</u>
		£1,723,611.52
Add: premium		<u>£12,905.90</u>
Total payment		<u>£1,710,705.62</u>

SOLUTION FIVE

(a) Merits and Demerits of Protectionist Measures Imposed by Governments

The merits of protection are discussed below:

(i) **Imports of cheap goods**

Measures can be taken against imports of cheap goods that compete with higher priced domestically produced goods, and so preserve output and employment in domestic industries. In some countries, advocates of protection have argued that their industries are declining because of competition from overseas, and the advantages of more employment at a reasonably high wage are greater than the disadvantages that protectionist measures would bring.

(ii) **Dumping**

Measures might be necessary to counter 'dumping' of surplus production by other countries at an
uneconomically low price. Although dumping has short-term benefits for the countries receiving the cheap goods, the longer term consequences would be a reduction in domestic output and employment, even when domestic industries in the longer term might be more efficient.

(iii) **Retaliation**

This is why protection tends to spiral once it has begun. Any country that does not take protectionist measures when other countries are doing so is likely to find that it suffers all of the disadvantages and none of the advantages of protection. That's why Canada could be retaliating to the USA tariffs.

(iv) **Infant industries**

Protectionism can protect a country's 'infant industries' that have not yet developed to the size where they can compete in international markets. Less developed countries in particular might need to protect industries against competition from advanced or developing countries.

(v) **Declining industries**

Without protection, the industries might collapse and there would be severe problems of sudden mass unemployment amongst workers in the industry.

(vi) **Reduction in balance of trade deficit**

However, because of retaliation by other countries, the success of such measures by one country would depend on the demand by other countries for its exports being inelastic with regard to price and its demand for imports being fairly elastic.

The demerits of protection are discussed below:

(i) **Reduced international trade**

Because protectionist measures taken by one country will almost inevitably provoke retaliation by others, protection will reduce the volume of international trade. This means that the following benefits of international trade will be reduced.

(1) Specialisation
(2) Greater competition, and so greater efficiency amongst producers
(3) The advantages of economies of scale amongst producers who need world markets to achieve their economies and so produce at lower costs

(ii) **Retaliation**

Obviously it is to a nation's advantage if it can apply protectionist measures while other nations do not. But because of retaliation by other countries, protectionist measures to reverse a balance of trade deficit are unlikely to succeed. Imports might be reduced, but so too would exports.

(iii) **Effect on economic growth**

It is generally argued that widespread protection will damage the prospects for economic growth amongst the countries of the world, and protectionist measures ought to be restricted to 'special cases' which might be discussed and negotiated with other countries.

(iv) **Political consequences**

Although from a nation's own point of view, protection may improve its position, protectionism leads to a worse outcome for all. Protection also creates political ill-will amongst countries of the world and so there are political disadvantages in a policy of protection.

(b) Effect of Tariffs Imposed by Protectionist Governments on the Currency Risk and Capital Investments

Tariffs can significantly impact currency risk, as they introduce uncertainty and volatility into currency markets. Here's how tariffs influence currency risk:

(i) **Increased Volatility:** Tariffs often lead to fluctuations in exchange rates as markets react to changes in trade policies. This volatility can increase the risk for businesses and investors dealing in foreign currencies.

(ii) **Inflationary Pressures:** Tariffs can raise the cost of imported goods, leading to inflation. Central banks may respond by adjusting interest rates, which can further affect currency values and increase currency risk.

(iii) **Trade Imbalances:** Tariffs can alter trade balances by reducing imports or exports. These changes can impact the demand for a country's currency, leading to shifts in its value.

(iv) **Market Sentiment:** Tariffs can create uncertainty in global markets, affecting investor confidence. This uncertainty can lead to rapid changes in currency values, especially for emerging market currencies.

(v) **Retaliatory Measures:** Counter-tariffs imposed by affected countries can exacerbate currency risk by creating additional uncertainty and market reactions.

Tariffs can have significant effects on capital investment, both positive and negative, depending on the context and industries involved. Here's how they can influence investment:

(1) **Increased Costs**: Tariffs raise the cost of imported goods, which can increase production costs for businesses reliant on foreign materials. This may discourage investment in affected industries.
(2) **Shift in Investment**: Companies may redirect investments to domestic production to avoid tariffs, potentially boosting local industries but disrupting global supply chains.
(3) **Uncertainty**: Tariffs create uncertainty in trade policies, making businesses hesitant to commit to long-term investments due to unpredictable costs and market conditions.
(4) **Impact on Profit Margins**: Higher costs from tariffs can reduce profit margins, leading companies to scale back on capital expenditures.
(5) **Encouragement of Innovation**: In some cases, tariffs can encourage businesses to invest in innovation and automation to reduce dependency on imported goods.
(6) **Retaliatory Measures**: Counter-tariffs from other countries can further complicate investment decisions, as businesses face additional trade barriers.

END OF SUGGESTED SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA3.7 PUBLIC SECTOR AUDITS AND ASSURANCE

FRIDAY 12 DECEMBER 2025

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

INSTRUCTIONS TO CANDIDATES

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

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

   Section A: ONE (1) **Compulsory** scenario question.

   Section B: FOUR (4) Optional scenario questions. Attempt any THREE (3) questions.

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

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

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

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

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

8. Present legible and tidy work.

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

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

SECTION A

This question is compulsory and must be attempted.

<u>QUESTION ONE – (COMPULSORY)</u>

In a strategic effort to strengthen national food security, the Government of Zambia directed the country's security wings to actively participate in agricultural production. In response, one (1) of the security wings launched a maize farming operation five (5) years ago, which has since contributed significantly to the nation's food security objectives.

To further support this initiative, the security wing established a milling company with the primary goal of processing maize into maize meal—Zambia's staple food—ensuring consistent availability and affordability across the country. Although the milling company is expected to operate as a commercially viable entity, it is subject to price controls set by the government, which cap the retail price of its products. The company is also required to function autonomously and prepare annual financial statements.

The company was established through a statutory instrument that mandates the following:

(1) The maize meal produced must comply with quality standards issued by the Food and Nutrition Commission.

(2) The product must be distributed through the company's own retail outlets as well as designated chain stores.

(3) The milling company must procure 60% of its maize input from independent farmers at competitive prices, while the remaining 40% should be sourced internally from the security wing's farming activities.

Operational and Financial Highlights for the First Year:

(1) An initial investment of K10 million was made for the purchase of the milling plant, along with an additional K5 million allocated for working capital.

(2) During the year, the company processed a total of 1.8 million metric tons of maize. Based on normal loss estimates of 37,800 metric tons, the expected output was 1.7622 million metric tons.

(3) However, the actual output was significantly lower at 1.3 million metric tons, indicating unusually high levels of wastage and inefficiency.

(4) According to the Millers Association, a milling plant of this capacity should yield 950 kilograms of maize meal per metric ton of input, with normal working losses averaging 2.1% of input.

Company Structure and IT Systems:

(1) The milling company is managed by a Plant Manager, supported by a Production and Sales Manager and a Finance Manager.

(2) The company utilizes a comprehensive Information Technology (IT) system to support operations. This includes:

- A Systems Analyst responsible for developing and maintaining applications.
- A computerized inventory and sales system, enabling regular and accurate reconciliations.
- An accounting software package used for processing financial data and generating financial statements.

As a Principal Auditor in the Office of the Auditor General, you were initially assigned to carry out a performance audit and an IT audit of the milling company after its first year of operations. The performance audit revealed significant inefficiencies and abnormal production losses well above industry norms. Since the milling plant is newly installed and fully operational, the losses could not be attributed to equipment malfunction.

Following the completion of the performance audit and submission of its findings to the company's oversight authorities, you have now been assigned to conduct a compliance audit of the milling operations. The audit aims to determine whether the company's activities conform to all applicable laws, regulations, policies, procedures, and statutory requirements as outlined in its legal framework. This assignment is especially important given the company's hybrid nature, which blends commercial business practices with government regulatory controls. A key focus will be on evaluating the company's adherence to the provisions of the statutory instrument that governs its operations.

To guide the audit process, a pre-audit meeting will be held with the team to discuss essential planning elements. These include methods for gathering audit evidence, identifying the relevant compliance criteria, and designing substantive procedures to assess regulatory compliance. Ultimately, the audit seeks to confirm the company's fulfillment of its regulatory obligations and provide recommendations to address any non-compliance, thereby enhancing governance, accountability, and operational efficiency.

Required:

(a) Explain, briefly, the work that you will perform in *understanding the audited entity* and *risk assessment stages* of the performance audit of the milling company. (4 marks)

(b) (i) Explain the objective of the performance audit of the milling company. (2 marks)

(ii) Describe four (4) elements of the performance audit using information in the scenario. (4 marks)

(iii) Describe two (2) audit procedures for each of the value for money principles using the information in the scenario. (6 marks)

(c) (i) Explain two (2) objectives of the intended Information Technology audit of the milling company. (4 marks)

(ii) Explain the meaning of test data and illustrate its use in the audit of the milling company IT system. (4 marks)

(iii) Explain the meaning of audit software in obtaining evidence in the audit of the milling company and illustrate its use. (4 marks)

(d) (i) Suggest four (4) criteria that you will use in the compliance audit of the milling plant. (4 marks)

(ii) Describe four (4) substantive audit procedures that should be performed during the compliance audit of the milling plant. (8 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt any THREE (3) questions.

<u>QUESTION TWO</u>

Chambeshi Energy Corporation Zambia (CEC Zambia) is a publicly owned entity responsible for the generation, transmission, and distribution of electricity across the Copperbelt region. As Senior Auditor in the Office of the Auditor General (OAG), you have been assigned to lead the audit for the year ending 31 December 2024. The company has experienced significant growth, which, although beneficial, has led to challenges in maintaining effective internal controls. This rapid expansion has necessitated frequent changes to CEC Zambia's financial systems, which have made it difficult to implement adequate controls to manage the evolving business environment. The Financial Director (FD) expressed concerns about the need for support in reviewing and assisting with the implementation of these controls to align them with the company's growth.

A key audit concern is the potential non-compliance with Zambia's energy regulations, particularly regarding the new transmission system. There are doubts about whether the system fully meets the legal requirements for cross-border trade and energy distribution, which could expose CEC Zambia to legal penalties, reputational damage, and material financial consequences. The audit team must evaluate whether non-compliance has resulted in material misstatements in the financial statements, especially regarding potential fines or costs arising from regulatory breaches.

Another issue is audit independence. The FD's request for the audit team to assist in reviewing and implementing internal control systems could compromise the auditors' independence. As this is the second year of the audit engagement, the auditors must be cautious of over-familiarity with management, which could reduce professional skepticism and compromise the objectivity required in the audit process. The audit team must maintain their independence and avoid any involvement that could undermine their ability to assess the company's internal controls objectively.

The audit has also identified deficiencies in quality control and audit documentation at CEC Zambia. Inconsistent documentation practices have made it difficult to substantiate audit conclusions, risking the integrity of the audit findings. Proper documentation is critical for supporting conclusions and ensuring audit work is easily reviewed. Additionally, there has been insufficient supervision and review of audit work, increasing the risk of undetected errors or omissions. These gaps in supervision could affect the overall effectiveness of the audit.

Finally, the Supreme Audit Institution (SAI), as outlined in ISSAI 12 Value and benefits of SAIs, plays a vital role in promoting accountability, transparency, and good governance. The OAG is responsible for ensuring that government entities like CEC Zambia operate efficiently and comply with the law. By adhering to ISSAI 12 Value and benefits of SAIs, the OAG promotes transparency and drives improvements in governance and accountability. This, in turn, strengthens the overall governance structure and reinforces public trust in government institutions.

Required:

(a) Identify and discuss three (3) potential threats to the independence of auditors in the engagement with CEC Zambia, and propose how these threats can be mitigated. (6 marks)

(b) Examine how the auditor can establish whether non-compliance with laws and regulations has led to material misstatements in the financial statements. (3 marks)

(c) Describe three (3) deficiencies in quality control in the Office of the Auditor General and propose practical recommendations to strengthen the system. (5 marks)

(d) Explain the value and benefits of the Supreme Audit Institution (SAI) according to ISSAI 12 Value and benefits of SAIs, and discuss how the OAG fulfills its duty as a role model organization in promoting transparency, accountability, and good governance. (6 marks)

[Total: 20 Marks]

QUESTION THREE

The country has been struggling to contain pests experienced by farmers in the past and which have affected the yield from maize growing. The Government is greatly concerned about this and has asked higher institutions of learning to carry out research and come up with a solution that will help eradicate the pests.

The Government through the Ministry of Agriculture invited both public and private universities to bid for a research grant of K70 million to be used for the research on the pests. After evaluation of the bids received, the Ministry awarded three (3) universities including the Research University of Zambia which was awarded K14 million.

The project is for a period of two (2) years and among other conditions the following were applicable:

(1) The grant funds should be kept in a separate bank account.

(2) Financial statements should be maintained and the grant supported the employment of a Finance Officer.

(3) Accounting for the grant funds should be in accordance with the existing accounting systems of the recipient institution.

The project involved a lot of travelling around the country for the research teams. The travel budget was overspent in the first year of the project. A separate bank account was opened as per grant conditions. During the year, the university won two (2) one (1) year projects totaling K3.0 million and the money received was deposited in the same bank account used for the research grant. No reconciliations of the bank balance were done and at the end of the year the Finance Officer could not agree the balance at bank with the total of the three (3) cash book balances for the three (3) projects. The balance at bank was less than the total cash book balances. The project was supervised by a Steering Committee of three (3) comprising the Grant Manager and two (2) Senior Researchers.

The following additional information relates to the pest research project:

(1) There was in stock at the end of the year, a significant quantity of reagents for use in the laboratory. Some of these reagents were still in stock at the period end and were valued at cost.

(2) The reagents in stock were required to be used in the first year of the project and most of it was nearing expiry. The university bought the reagents that were nearing expiry because they were purchased at a much lower price.

You work for the Office of the Auditor General and you have been assigned to lead an audit team to conduct a financial audit of the financial records of the pest research project. During the audit you requested for written representations regarding the reagents that were nearing expiry. You are concerned that these reagents may not be used and could impact the results of the research. This is a matter that requires to be disclosed to the Ministry of Agriculture.

The Steering Committee informed you that the reagents could be used for one (1) month after expiry.

You requested for written representations regarding the use of reagents after expiry. These representations were not provided at the time of concluding the audit. When asked about the fact that the funds at bank were less than the expected balance for the pest research project, the Steering Committee assured you that the funds would be refunded within the first month of the first year from internal sources of the university. The Steering Committee was non-committal and again could not provide the requested representations.

On 20 January 2025 during the exit meeting with the project Steering Committee, it came to your attention that an amount of K1.5 million was charged to the project for activities that were not related to the project activities. The audit opinion is due to be issued and audit report signed in the next few days.

Required:

(a) (i) Explain the meaning and reliability of written representations in the audit of The financial statements of the pest research project by the Research University of Zambia. (2 marks)

(ii) Discuss the action that should be taken in view of the fact that management of research project has not provided the written representations requested for by the audit team. (4 marks)

(b) Describe four (4) audit risks that should be considered in planning the audit of the financial statements of pest research project in accordance with the provisions of ISSAI 200: Principles of financial auditing. (8 marks)

(c) (i) Explain the duty of the public sector auditors with regards events between the period end the date of signing the audit report. (4 marks)

(ii) Discuss the response of the audit team regarding the event of 20 January 2025 before the finalization of the audit. (2 marks)

[Total: 20 Marks]

QUESTION FOUR

You work for the Office of the Auditor General as Principal Auditor and have been assigned to lead a team of auditors to conduct a performance audit of the construction of three (3) dams in a drought prone District. The project was funded by the Constituency Development Fund and was coordinated by the District Commissioner of the District.

Prior to commissioning the project, consultants were engaged to assess and quantify the cost of the project.

The project estimated costs and actual expenditure are as follows:

	Estimate K000	Actual K000
Acquisition of earthmoving equipment	7,500	9,300
Consultancy fees	1,000	900
Labour	2,500	2,600
Fuel and lubricants	1,100	800
Repairs of equipment	900	1,100
Total	13,000	14,700

The specification of the dams is that each dam should have a capacity of 2.0 million cubic meters of water. The project conditions require that procurement of project equipment should be by way of competitive tenders and in accordance with the public procurement guidelines. The current average cost of constructing dams with similar specifications is K15 million.

The first dam was completed and commissioned in year two (2) of the project. Dam number two (2) was completed in year three (3). Only 30% of the works for dam three (3) had been done at the time of the audit. The Office of the Auditor General has a budget line for engaging third party experts in gathering audit evidence, if necessary.

Required:

(a) Explain the general requirements of independence and audit risk in the performance audit of the dam project. (2 marks)

(b) Explain economy, efficiency and effectiveness in the context of the performance audit of the dam construction project. (6 marks)

(c) Suggest three (3) criteria that should be used in the conduct of the performance audit of dam construction project. (6 marks)

(d) Describe three (3) substantive audit procedures to be performed in the performance audit of the dam construction project considering the three (3) value for money principles. (6 marks)

[Total: 20 Marks]

QUESTION FIVE

The Government, through the Ministry of Community Services, introduced a Cash for Work Program to address the increasing vulnerability of individuals in local communities, particularly in the face of rising living costs. To regulate and ensure the smooth implementation of the program, a Statutory Instrument was issued, containing specific guidelines and procedures that must be followed. The program is managed by Ward Development Committees (WDCs) at the local level, which consist of a Ward Councillor, a representative from the Ministry of Community Services, and three (3) local community representatives elected by the community. Each project within the program is required to be approved by the Constituency Development Committee (CDC) before being implemented.

The main objective of the Cash for Work Program is to provide short-term employment for vulnerable individuals within the community, offering them financial relief from the high cost of living. To ensure compliance with the International Labour Organization's (ILO) standards on child labor, all beneficiaries must be at least 16 years old and must be residents of the ward where the work is carried out. Additionally, the program's guidelines stipulate that work activities must be certified as completed by an official from the constituency before any disbursement of funds. Disbursements must occur within ten (10) days of certification, and beneficiaries are required to sign for the cash received as proof of payment. Moreover, any funds previously disbursed for approved activities must be retired (i.e., financial and activity reports submitted) to the Ministry before new funds can be released.

During a review of the Cash for Work Program, several instances of fraudulent activities were discovered, revealing serious lapses in accountability and oversight. It was found that funds were disbursed without proper certification of completed work, meaning that payments were made to beneficiaries without verification that the tasks were actually carried out. Additionally, the required retirement of previous disbursements—in which beneficiaries were supposed to submit reports and account for earlier payments—was not conducted. This failure to adhere to the established procedures allowed new funds to be allocated without ensuring that past funds had been appropriately accounted for, leading to a breakdown in the program's financial controls.

These weaknesses in program management created an environment where officials could easily bypass accountability measures and divert funds for personal use. As a result, the intended beneficiaries—vulnerable community members—were deprived of the financial assistance they were meant to receive. The fraudulent activities not only violated the program's guidelines but also undermined public trust in the government's ability to properly manage resources. The failure to maintain effective oversight has had a significant impact on the integrity of the program, compromising its core objectives of supporting vulnerable individuals in the community.

Required:

(a) Describe the purpose of the planned compliance audit of cash for work program. (2 marks)

(b) Describe two (2) methods that will be used to obtain evidence in the planned compliance audit of the cash for work program. (4 marks)

(c) Explain two (2) objectives of the forensic investigation in the operations of the cash for work program. (4 marks)

(d) Explain five (5) procedures that should be followed in the conduct of the forensic investigation. (10 marks)

[Total: 20 Marks]

END OF PAPER

CA 3.7 PUBLIC SECTOR AUDITS AND ASSURANCE

SUGGESTED SOLUTIONS

SOLUTION ONE

(a) Work in the following stages of planning an audit:

Understanding the entity in a financial audit:
The procedures that will be performed by the audit team in this area will be aimed at gaining an understanding of the nature of business that the milling company is involved with and any industry information. The audit team will wish to understand among other information the following:

- Is the milling company being run as an investment venture with a view to make a profit.
- The internal controls that may be in place in the running of the milling company.
- Laws governing the milling company.

The purpose of gaining an understanding is to ensure that the audit team will have the necessary knowledge of the entity to enable it design appropriate procedure to gather the evidence required to form an opinion.

Understanding the risk assessment of the client company:
This is the stage of the financial statement audit that the public sector auditors assess the risk of material misstatements of the financial statements. The auditors will do this using various methods including inquiry of management and others within the entity, observations and analytical procedures.

Once the risks of material misstatements have been identified the public sector auditors will respond appropriately by deciding on the nature and extent of further audit procedures to be conducted and specifically responding to the assessed risks.

(b) (i) Objective of the performance audit:

The objective of the performance audit of the operations of the milling company is to establish whether or not the operations of the milling company are in compliance with value for money principles of economy, efficiency and effectiveness and whether there is room for improvement.

(ii) Elements of the performance audit of the milling company:
Objective:

The objective of setting up the milling company is to alleviate the availability of maize meal in the country and to eliminate the shortage of the product.
Inputs:
This relates to the resources that have gone into the setting up of the milling plant. The resources include the capital equipment acquired, human resources and the raw material inputs used in manufacturing.

Processing:
This is the activity of processing the inputs to convert them into the expected output. This is the milling of the maize to produce the maize meal.
Output:
This relates to the result of the processing of the inputs to come to the produce. The output is used to determine the efficiency aspect of value for money principles.

Outcome:
This is the expected output considering the inputs in the process. This is what is desired but usually will not be the same as the output because of wastage during the processing stage.

(iii) Audit procedures for performance audit:
Economy:
(1) Obtain the acquisition documents of the milling plant and evaluate whether it could have been bought at a lower cost without compromising on quality.
(2) Obtain market prices of the milling plant and compare with the price paid for the plant.
(3) Review samples of purchases of maize bought from third parties and compare with the existing maize price and establish whether the milling plant does not pay excessive prices considering the existing prices.
(4) Evaluate the use of manpower in production and assess if there could be low utilization of labor and production could have been achieved using lesser human resources.
Efficiency:
(1) Obtain industry performance figures regarding production and compare with the performance of the milling company and obtain explanations for significant variations.
(2) Work out the expected output considering the input of maize using the industry indicators of normal loss and compare with actual output. Obtain explanation for any difference.
(3) Calculate the cost of production per kilogram of maize meal or per 50Kg bag and compare with the average market costs.
Effectiveness:
(1) Evaluate the production of maize meal and compare with the intended production level.
(2) Assess the impact of the maize meal supplied by the plant on the availability of maize meal in the country. This is meant to assess whether the objective of setting up the milling plant has been achieved.
(3) If the objective has been achieved carry out a cause and effect analysis to determine whether the achievement is as a result of the milling plant or other reasons such as increased production by other milling companies.

(c) (i) Purpose of intended IT audit:

(1) To obtain evidence that the IT system is operating as expected the results of which can be relied upon for decision making.

(2) A performance audit of the IT system could be undertaken to ascertain that the acquisition of the system was done in line with the value for money principles of economy, efficiency and effectiveness.
(3) The audit could also be targeted as establishing whether or not the expected controls in the IT system exist and are operating as expected. This includes both general controls and application controls. This could be important in this case in view of the fact that the Systems Analysts appears to be solely responsible for the development of applications and making systems changes.

(ii) Meaning of test data and its use:
Test data – This is the use by the auditor to test a computer system or related controls by inputting data prepared by the auditors and requiring this to be processed in the client computer system and comparing the results. If the results of the predetermined results and the results from processing the data are different investigations will be carried out and explanations required by the auditor.

Illustration of use of test data:
If the IT system has constraints which should be met, the test data could be such that they violet the constraints and require that it be input in the system. The expectation is that the system should reject the transaction and it does not then it means that the control is not effective.

(iii) Use of audit software in the audit of operations of milling company:
Meaning of audit software:
Audit software is the use by the auditor of computer assisted audit techniques to perform audit procedures that would otherwise have been performed manually.

Illustration of the use of audit software:
In the audit of the financial statements of the milling company, audit software could be used in any of the following ways:

- The extraction of samples for testing from the computer system. Instead of manually extracting samples, this could be done using audit software.
- The conducting of substantive audit procedures such as recalculating figures could be done using audit software at high speed and for larger volumes of data.
- Analytical procedures on the draft financial statements could be done using audit software.

(d) (i) **Criteria in the compliance audit**
(1) Relevant laws and regulations

- The milling plant must operate in accordance with all applicable national laws and regulations, including those related to food safety, labor, environmental protection, and occupational health.

(2) Government Policy Guidelines
  - o The plant's operations must align with government policy guidelines governing input utilization, production efficiency, acceptable loss limits, and financial accountability.

(3) Product Quality Compliance
  - o The maize meal produced must be conducted through officially established outlets and designated chain stores as approved by the authorities.

(4) Procurement Source Compliance
  - o The milling company must procure 60% of its maize from local farmers at competitive market prices, while the remaining 40% should be sourced from maize grown internally by the security wings.

(5) Production Efficiency Compliance
  - o The actual maize meal output must align with expected yield levels based on input quantities. The significant variances between the expected (1.722 million metric tons) and the actual output (1.3 million metric tons) must be justified and within acceptable thresholds.

(ii)**Substantive audit procedures**

(1) Product Quality Compliance
  - o **Compliance Testing against Quality Standards:** Review quality assurance test results and inspection reports to verify that the maize meal produced complies with the standards set by the Food and Nutrition Commission.

(2) Distribution Channel Compliance
  - o **Review of Procurement and Sales Documentation:** Examine sales invoices, dispatch records, and distribution schedules to confirm that maize meal was sold only through established outlets and designated chain stores.

(3) Production Efficiency Compliance
  - o **Recalculation of Input to Output ratios:** Recalculate expected output based on 1.722 million metric tons of maize and compare with actual output (1.3 million metric tons) to assess losses and investigate inefficiencies.
  - o **Physical Verification of Inventory and Stock Records:** Conduct site visits and inventory counts to ensure that reported production figures reflect actual stock movements and identify any unaccounted for losses.

(4) Procurement sources Compliance
  - o **Review of Procurement and Sales Documentation:** Inspect procurement records to verify that 60% of maize was sourced from local farmers at competitive prices and 40% from the security wing's internal production.

(5) Financial Accountability Compliance
  - o **Verification of Financial Transaction and Capital Expenditure:** Examine financial records to ensure that the K10 million investment and K5 million working capital were properly utilized according to approved budgets and plant operational requirements.

SOLUTION TWO

(a) **Threats to the Independence of Auditors and Mitigation Measures (6 marks)**
In the case of CEC Zambia, several potential threats to auditor independence arise, particularly due to the company's rapid growth and the involvement of the Financial Director (FD) in requesting assistance with implementing internal controls.

(1) **Self-Review Threat:** The request for the auditors to assist in reviewing and implementing internal control systems introduces a risk that the auditors may be in the position of reviewing their own work. This could impair their objectivity as they may be reluctant to identify weaknesses in controls they helped to design or implement.
(2) **Familiarity Threat:** Since this is the second year of the audit engagement, there is a risk that the auditors may become too familiar with the management team of CEC Zambia, which could reduce their professional skepticism. Over-familiarity can undermine their independence and lead to biased judgments in evaluating the company's financial statements.
(3) **Advocacy Threat:** The auditors' role in advising CEC Zambia on internal control matters could lead to an advocacy threat, where the auditors may begin to advocate for the company's interests, rather than remaining impartial and objective in their audit responsibilities.

Mitigation Measures:

- **Maintain Clear Segregation of Duties:** The auditors should avoid becoming involved in any tasks related to the design or implementation of internal controls. Instead, they should limit their role to assessing the adequacy of controls already in place and ensuring they comply with relevant regulations.
- **Rotation of Audit Personnel:** To combat the familiarity threat, the OAG should consider rotating audit team members periodically to maintain objectivity and avoid over-familiarity with CEC Zambia's management.
- **Establish Independence Protocols:** Clear internal policies should be put in place, specifying that auditors cannot take on advisory roles that could compromise their independence. Any involvement in advisory functions should be limited to ensuring compliance with the law and assessing the effectiveness of existing controls rather than influencing management decisions.
- **External Review and Oversight:** The engagement of a third-party reviewer or audit supervisor to oversee the audit process could help mitigate potential risks of bias or over-familiarity with management.

(b) **Establishing Material Misstatements due to Non-Compliance (3 marks)**
To determine whether non-compliance with laws and regulations has led to material misstatements in the financial statements, the auditor should follow a systematic approach:

(1) **Review of Regulatory Requirements:** The auditor must first thoroughly understand the legal and regulatory requirements that CEC Zambia is subject to, especially those related to the new transmission system. This includes understanding the scope of the regulations governing cross-border trade and energy distribution.

(2) **Assessing Compliance with Regulations:** The auditor should assess whether the company has complied with the legal requirements, including reviewing contracts, permits, and any communications with regulatory bodies. The auditor should also assess the potential impact of non-compliance, such as fines, penalties, or the need to restate financial statements.

(3) **Identifying Material Financial Implications:** If non-compliance is identified, the auditor should evaluate the financial impact. This may include estimating fines, penalties, or legal costs that would need to be recognized in the financial statements. If these potential costs are not adequately reflected in the financial records, the auditor should consider whether this results in material misstatements that need to be adjusted.

(c) **Deficiencies in Quality Control and Practical Recommendations (5 marks)**

The deficiencies in quality control at CEC Zambia are evident from the inconsistent documentation practices, insufficient supervision of audit work, and ineffective communication of audit findings.

(1) **Inconsistent Documentation:** The lack of thorough documentation has led to difficulties in substantiating audit conclusions, potentially undermining the reliability of audit findings.

(2) **Inadequate Supervision:** The absence of sufficient review and supervision of audit work raises the risk of errors going undetected. In complex audits like that of CEC Zambia, proper supervision is critical to ensuring that all areas are thoroughly covered and no material errors are overlooked.

(3) **Ineffective Communication:** The audit team has struggled to communicate their findings effectively, making it difficult for stakeholders to fully understand the implications of audit results.

Recommendations:

- **Strengthen Documentation Practices:** The audit team should adhere to standardized documentation protocols, ensuring that all audit work is thoroughly documented and supported by sufficient evidence. Documentation should be clear, concise, and easily accessible for future reference or review.
- **Enhance Supervision and Review:** Implement a more robust supervision system, with senior auditors reviewing the work of junior auditors throughout the audit process. This will help to identify any gaps in the audit work early on and ensure that all aspects of the audit are adequately addressed.
- **Improve Communication of Findings:** Develop a clearer format for reporting audit findings, ensuring that the implications of these findings are well-communicated to all relevant stakeholders. The use of executive summaries, clear recommendations, and a structured follow-up process will help ensure that stakeholders understand the audit results and take necessary actions.
- **Regular Training and Development:** The audit team should undergo regular training to stay updated on best practices in audit methodology, documentation, and communication. This will help improve the overall quality of the audit process.

(d) **Value and Benefits of the Supreme Audit Institution (SAI) in ISSAI 12**

The value and benefits of the Supreme Audit Institution (SAI) as outlined in ISSAI 12 are crucial to ensuring accountability, transparency, and good governance in the public sector.

(1) **Ensuring Accountability and Transparency:** SAIs play a vital role in holding public entities accountable for the use of public resources. Through audits and evaluations, SAIs ensure that government entities like CEC Zambia operate efficiently and in compliance with the law, thus fostering trust in public institutions. They also promote transparency by making audit findings publicly available, allowing citizens and other stakeholders to hold their government accountable for its actions.

(2) **Improving Governance:** By conducting regular audits, SAIs help to identify inefficiencies, waste, and corruption in the public sector. Their work drives systemic improvements, fostering good governance practices and enhancing the credibility of government operations.

(3) **Promoting Best Practices in Public Financial Management:** ISSAI 12 emphasizes the role of SAIs in promoting the effective and efficient use of public funds. This aligns with the OAG's mandate to ensure that CEC Zambia and other public entities manage resources prudently, comply with legal frameworks, and improve their operational effectiveness.

How the OAG Fulfills its Role:

- **Transparency in its Operations:** The OAG follows the principles outlined in ISSAI 12 by ensuring that its own operations are transparent. This includes publicly releasing audit reports and findings, allowing citizens and stakeholders to engage with the audit process and hold government institutions accountable.
- **Promoting Accountability in Public Institutions:** The OAG's audits play a key role in holding government entities like CEC Zambia accountable for their performance. Through detailed audits and performance evaluations, the OAG identifies areas where improvements are needed, ensuring that public resources are used efficiently and in accordance with the law.
- **Setting an Example of Good Governance:** By adhering to ISSAI 12 standards, the OAG sets an example for other public institutions in Zambia. The OAG's commitment to transparency and accountability reinforces the governance framework in the country and promotes public trust in government institutions.

SOLUTION THREE

(a) (i) Meaning and reliability of written representations:

Written representations are made on request by the auditor by management. They are made in order to support other evidence such as oral evidence obtained.

The auditors cannot rely solely on written representations in obtaining evidence. They are meant only to support other evidence for example when management makes accounting estimates or concludes that its assessment shows that the entity is a going concern, the auditors may request for written representations from management.

(ii) Action to take when requested representations not provided:

(1) Efforts should be made to obtain evidence through other means. If this satisfies the audit objective then auditors can rely on the evidence from these other sources.
(2) This will call for referring the matter to those charged with governance of the university to seek their indulgence.
(3) If the above does not yield any results consider bringing the matter to the senior members of the audit team and the OAG.
(4) The audit team may require to reassess the integrity of the Steering Committee members and the reliability of any other written representations that may have been provided.
(5) Consider the impact of the lack of the written representations on the conclusion that will be reached.

(b) Audit risks in planning audit of the financial statements of pest research project:

Audit risks in planning the audit of project funds:

	Audit risk	**Explanation**
1	Non-compliance with grant conditions.	Non-compliance with grant conditions will result in the misstatements of the financial statements.
2	The mixing of project funds with other funds.	The fact that non-project funds have been deposited in the project funds account could result in the financial statements being misstated. The fact that the cash at bank does not agree with the project records could result in fraudulent accounting to cover up any fraud that may have happened.
3	Risk of fraud	There is a risk that project funds could be misapplied by those responsible and this may result in falsification of the accounts to conceal any fraud.
4	The valuation of expired reagents.	The reagents that are nearing expiry should be written off. There is a risk that these reagents may still be valued at cost instead of being written off resulting in the misstatement of the financial statements.

(c) (i) Substantive audit procedures on subsequent events:

The auditors have an active duty to perform between the end of the financial year and the date of signing the audit report.
The auditors have a duty to identify subsequent events after the period end to the date of signing the audit report.
Once identified, the auditor should inquire of management on how it has accounted for the subsequent event and confirm that this is in accordance with the applicable accounting standard.

(ii) Response to event of 20 January 2025:
The event of the 20 January 2025 is an adjusting subsequent event that gives evidence of conditions that existed at the year end. The error relates to the financial records for the period under review.

The audit team will need to request the steering committee to ensure that the financial statements are corrected and the amounts wrongly posted to the project reversed. Once this is done, audit procedure should be performed on the adjustments made.

SOLUTION FOUR

(a) General requirements and audit risk in performance audit of dam project:

The general principles of public sector auditing apply to all public service audits regardless of their nature.

Independence:
The audit team that will be assigned to conduct a performance audit of the dam construction project require to be independent in order for them to maintain their objectivity. In the event that there are ethical dilemmas hat exist, the Supreme Audit Institution should apply suitable safeguards.

Audit risk:
It is a requirement in a performance audit for the public sector auditors to assess and manage audit risk in planning the performance audit. The risk that could cause the public sector auditor to reach an incorrect conclusion should be managed and reduced to acceptable levels.

(b) Value for money principles in performance audit of dam project:

Economy – this relates to the use of funds in the construction of the dam. The matter of concern is to determine that the costs incurred are not excessive. For example consideration will be made on the acquisition of earth moving equipment to establish whether the amount spent is the best price or the equipment could have been bought at a lower price without compromising on quality.

Efficiency – This is a measure to establish whether the outcome of a project could have been met using lesser resources. It is a measure of the use of resources to avoid wastage.
In the dam construction project the actual expenditure it will be necessary to evaluate whether the two completed dams and the third incomplete dam could have been constructed at less than the actual expenditure. There is a possibility of wastage in the use of funds considering that the budget is denominated in US$ and there hasn't been any significant fluctuations in the exchange rate during the three years.

Effectiveness – This is a measure of whether the objective of the project has been achieved. The objective was to build three dams which will help alleviate the water shortages. It is clear that the objective has not been achieved in that only two of the three dams have been constructed.

(c) Criteria for the performance audit:

(1) The average cost of earthmoving equipment in the region will be the compared with the actual cost incurred.
(2) The average cost of constructing a dam with similar specifications as the three dams will be compared with the actual costs.
(3) The size of the constructed dam should have a capacity of 2 000 million cubic meters of water.

(d) Substantive audit procedures for the performance audit:

(1) Inquire on the purchase of earthmoving equipment and inspect the supporting documents to ensure the cost paid is the best price but without compromising on quality.
(2) Compare the total cost of constructing each of the two completed dams and compare the cost with the average cost in the country. Obtain explanations for significant variations.
(3) Engage an expert to evaluate the completeness of the two dams meeting the specification and quality.
(4) Inquire from the community the impact of the two completed dams on the community and whether this has resulted in meeting the intended objective of the construction of the dams.

SOLUTION FIVE

(a) Purpose of planned compliance audit:

The purpose of conducting a compliance audit of the work for cash program is to obtain evidence that the program is being conducted in compliance with the rules and guideline governing its use.

(b) Methods of obtaining evidence in the compliance audit:

(1) Inquiry:
This method of obtaining evidence will be used in the compliance audit of the cash for work program to gain an understanding of the program. This will involve inquiring from the staff of the local council and the constituency and ward officials involved in the program.

(2) Inspection:
In the compliance audit of the cash for work program the public sector auditors may inspect the work that is complete and has been paid for. This is to confirm that cash is only paid out for work that has been completed.

(3) Observation:
This method of obtaining evidence will be used in the compliance audit of the cash for work program by observing work as it is being conducted. This may be for the purpose of confirming that no under age children are engaged in the program.

(4) Recalculation:
This method of obtaining evidence could be used in the compliance audit in re-calculating the amounts payable based on the number of days worked.

(5) Confirmation:
This method of obtaining evidence in the compliance audit of the cash for work program could be the confirmation of receipt of money paid out for a sample of recipients.

(c) **Objectives of the forensic investigation**

(1) To establish the extent and nature of fraudulent disbursements: The investigation aims to identify instances where funds were disbursed without proper certification of completed work or without retirement of previous disbursement. This includes verifying whether payments were made in violation of program guidelines and quantifying the financial loss resulting from such irregularities.

(2) To identify Individuals or Groups Responsible for Breaching Program Guidelines: The instigation seeks to trace accountability by determining which officials or beneficiaries were involved in authorizing or receiving fraudulent payments. This includes (e.g. those under 16 or from outside the ward) were improperly engaged, thereby violating labor laws and program requirements.

(3) **Determine the Scope of the Mismanagement and Weaknesses in the Program:** Another key objective is to assess the scale and impact of the procedural lapses that led to the fraudulent activities. This involves examining how the weaknesses in accountability and oversight allowed the misconduct to occur, and whether there were systemic issues in the management or implementation of the program. The forensic investigation seeks to identify vulnerabilities in the program's processes that need to be addressed to prevent future incidents.

(d) Procedure in the forensic investigation

(1) Gain an understanding of the fraud

The forensic investigators should gain an understanding of the fraud. This will be with a view to establish whether this is only a suspected fraud or it is an actual fraud that has happened. The forensic investigator will also want to establish if there are any suspects of those involved.

(2) Planning and Scoping the Investigation

The first step involves outlining the scope of the forensic investigation by identifying key areas of concern, such as the certification process, fund disbursement records, and retirement of previous disbursements. This stage also includes defining the investigation's objectives, the timeline, and the resources required for effective execution.

(3) Secure any evidence manual and electronic

The forensic investigators will need to quickly move in and safeguard any evidence that is there. This will be both electronic and manual evidence. If not safeguarded this could lead to destruction of valuable evidence.

(4) Document Review and Verification

Examine payroll records, work competition certificates, beneficiary lists, and fund retirement reports to identify and fund retirement reports to identify inconsistencies, missing documentation or forged approvals.

(5) Interviews and statements collection

Conduct structured interviews with key stakeholders, including program coordinators, ward officials, and selected beneficiaries, to gather evidence and detect any collusion or misrepresentation.

(6) Site Visits and physical verification

Visit selected project sites to confirm whether the reported works were actually completed, and assess whether the scale and quality of work match what was claimed in official records.

(7) Data Analytics and Trend Analysis

Use forensic data analysis tools to identify patterns such as repeated payments to same individuals, suspicious timing of disbursements or anomalies in beneficiary demographics (e.g. under workers).

(8) Tracing and Reconciliation of Funds

Track the flow of funds from disbursement to beneficiaries' level, and reconcile amounts paid with certified work and retirement documentation to detect misapplication or diversion of funds.

END OF SUGGESTED SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA 3.8: PUBLIC SECTOR FINANCIAL MANAGEMENT

FRIDAY 12 DECEMBER 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.

<u>QUESTION ONE</u> – (COMPULSORY)

Road Traffic and Safety Agency (RATSA) is considering an investment proposal to improve its service delivery to the public. It is evaluating an investment in a system that will increase the number of clients attended to and reduce the turnaround time. This initiative come about due to the public complaint that clients spend a lot of time on the queues in order to receive the service from the agency.

The agency analysed the problem and established that there has been an increase in the number of motorists on the road of which the existing system could not sustain. In order to meet the additional motorists attended to per day and reduce the turnaround time, a new traffic administration system called 'TUPE', with a useful life of five years and a maximum capacity of 300,000 clients per year, could be bought for K352 million, payable immediately. The net realisable value after five (5) years of operation is K50 million and would require significant investment to continue beyond the five years. The Existing system capacity is limited to two million clients per year. Forecast demand and production over the next five years is as follows:

Year	**1**	**2**	**3**	**4**	**5**
Project number of motorists (million)	2.16	2.27	2.30	2.30	2.23

The proposed investment will result in savings per client at current value of K3,700. The related variable cost is K2,600 per client and fixed costs associated with TUPE would be K55 million in the first year of operation, increasing by K5 million per year in each subsequent year of operation. All operational costs are in current value and are expected to increase by 12% per year due to inflation. The savings are also expected to increase by 12.5% per year.

The agency has a payback policy for capital investment of 2.5 years and use the Social Opportunity Cost Rate of 8% to appraise its capital investment. The agency board is strict on following the capital investment process as stipulated by the HM Treasury in the United Kingdom as the international best practice methodology.

Required:

(a) Evaluate whether the Agency should invest in the proposed new system or not using the Net Present Value. (12 marks)

(b) Calculate the discounted payback period for the proposed new system and advise on whether the agency should invest or not. (6 marks)

(c) Calculate the sensitivity of the project to changes in the savings and operational costs and comment on the results. (12 marks)

(d) Explain the five (5) components of the business case model developed by the United Kingdom's HM Treasury that would be used as part of the approval process of the TUPE project for RATSA. (10 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt any THREE (3) questions.

QUESTION TWO

(a) The PEFA program provides a framework for assessing and reporting on the strengths and weaknesses of Public Financial Management (PFM) using quantitative indicators to measure performance. PEFA is designed to provide a snapshot of PFM performance at specific points in time using a methodology that can be replicated in successive assessments, giving a summary of changes over time.

The framework is meant to assess the status of public financial management at central and local government levels of government. Governments subject themselves to the periodic assessment to improve their country's PFM systems.

Required:

Discuss benefits of the PEFA framework. (5 marks)

(b) The Budget Performance Report is one of the major requirements for accountability under PFM. Controlling Officers are required to submit an annual budget performance report to parliament.

The following Government budget funding information is related to a ministry for the financial year ended 2024:

Budget Item	**Annual Appropriation Amount**	**Year to Date (YTD) Warrant**	**Year to Date (YTD) Payments**
	K'000	K'000	K'000
Compensation of Employees	127,500	91,400	87,250
Goods and Services	25,000	17,250	17,000
Capital Expenditure	43,900	20,500	7,500
Total	196,400	129,150	111,750

Required:

(i) Explain the meaning of *Annual Appropriation* and *YTD Warrant* to the controlling officer of the ministry. (2 marks)

(ii) Prepare a Statement of Budget Performance Report for the year 2024 showing the *budget-warrant outturns* and *warrant utilization rates*. (9 marks)

(iii) Analyze and interpret the budget performance statement in (ii) above to facilitate the controlling officer's upcoming meeting with the select committee of parliament. (4 marks)

[Total: 20 Marks]

QUESTION THREE

The Government of Zambia has embarked on a comprehensive reform initiative to strengthen its Public Financial Management (PFM) system. This initiative aims to improve fiscal discipline, enhance the strategic allocation of resources, and ensure efficient service delivery. To monitor and evaluate the effectiveness of these reforms, the Government has adopted the Public Expenditure and Financial Accountability (PEFA) framework, a widely recognized tool for assessing PFM performance.

The Public Financial Management system measurement framework is important as it provides governments, legislatures, citizens and those who provide financing with an overview of the PFM system; it gives those stakeholders an understanding of how this will affect PFM outcomes, including the delivery of public goods and services and fiscal sustainability and it provides the foundation from which reforms can be planned and made.

Three Key objectives of the PEFA Reform initiative include:

(1) Fiscal Discipline: Implementing measures to control public spending, reduce budget deficits, and manage public debt effectively.

(2) Strategic Allocation of Resources: Ensuring that public funds are allocated to priority sectors, aligning with national development goals.

(3) Efficient Service Delivery: Improving the quality and accessibility of public services through better planning, execution, and monitoring of public expenditures.

Zambia's Public Financial Management (PFM) system has undergone several assessments, notably the 2017 PEFA evaluation.

Assume you are a consultant in public sector financial management based at the Ministry of Finance headquarters. The director responsible for public sector financial management has requested for an update on the latest performance of Zambia's Public Expenditure and Financial Accountability (PEFA) Framework.

Required:

(a) Explain seven (7) pillars of performance that are essential to achieving the three (3) key objectives of the PEFA framework. (14 marks)

(b) Provide general discussion notes to the Director on the performance of the PEFA framework in Zambia in accordance with Any three (3) of the following PEFA evaluation criteria:

(i) Budget predictability, reliability or control in execution.

(ii) Management of assets and liabilities.

(iii) Transparency of public funds.

(iv) Financial reporting.

(v) External Audit.

. (6 marks)

[Total: 20 Marks]

QUESTION FOUR

(a) Most often, public private partnerships are overrated in public sector management at the expense of public-public partnerships, which are also another powerful tool for improving public sector services.

Required:

Discuss four (4) advantages of *Public-Public Partnerships* over *Public-Private Partnerships*. (8 marks)

(b) Due to financial constraints, a Government University intends to use the Public Private Partnership (PPP) arrangement to construct a modern hospital on university land to provide the full health care needs of the University community, and to serve as its medical school.

After a competitive tender process, the University has shortlisted a contractor to construct the modern hospital using a Build Operate and Transfer (BOT) public procurement arrangement.
As a financial consultant, you are required to advice the parties on how to enter into a successful PPP arrangement. The parties are eager to know the inherent risks they are exposed to under such an arrangement.

Required:

Write a report to the two (2) parties, explaining the various risks that the university as a client, and the contractor would each be exposed to as parties to the PPP arrangement: (12 marks)

[Total: 20 Marks]

QUESTION FIVE

The Zambian Government presented its 2025 budget highlighting expected sources of revenue to draw upon to meet expenditure requirements in the 2025 financial year. The extract of the budget is shown below:

Functional Categories	**K'000**
Total , Revenue, Grants and Financing	**277,000,000**
A. Total Domestic Revenue & Domestic Financing	**107,000,000**
1. Domestic revenue	**58,000,000**
Income Tax	30,000,000
Value Added tax	5,000,000
Customs and Exercise	2,300,000
Other Revenues	1,700,000
Non Tax	19,000,000
2. Domestic Financing	**49,000,000**
B. Total Foreign Financing	
Projected Grants	70,000,000
Program (Project Loans)	200,000,000

From the indications of the Revenue projects, Government will be relying heavily on foreign financing and also borrow from the Domestic market to finance the budget.

Required:

(a) Explain the potential issues that may arise from:

(i) Foreign borrowing as a significate source of government financing. (4 marks)

(ii) Domestic borrowing as significant source of funding. (4 marks)

(b) Discuss six (6) challenges in increasing Domestic Resource Mobilization in low-income countries. (12 marks)

[Total: 20 Marks]

END OF PAPER

Formulae

Modigliani and Miller Proposition 2 (with tax)

$$k_e = k_e^i + (1 - T)(k_e^i - k_d)\frac{V_d}{V_e}$$

Two asset portfolio

$$s_p = \sqrt{w_a^2 s_a^2 + w_b^2 s_b^2 + 2w_a w_b r_{ab} s_a s_b}$$

The Capital Asset Pricing Model

$$E(r_i) = R_f + \beta_i (E(r_m) - R_f)$$

The asset beta formula

$$\beta_a = \left[\frac{V_e}{(V_e + V_d(1 - T))}\beta_e\right] + \left[\frac{V_d(1 - T)}{(V_e + V_d(1 - T))}\beta_d\right]$$

The Growth Model

$$P_o = \frac{D_o(1 + g)}{(r_e - g)}$$

Gordon's growth approximation

$$g = br_e$$

The weighted average cost of capital

$$WACC = \left[\frac{V_e}{V_e + V_d}\right]k_e + \left[\frac{V_d}{V_e + V_d}\right]k_d(1 - T)$$

The Fisher formula

$$(1 + i) = (1 + r)(1 + h)$$

Purchasing power parity and interest rate parity

$$S_1 = S_0 x \frac{(1 + h_c)}{(1 + h_b)} \qquad F_0 = S_0 x \frac{(1 + i_c)}{(1 + i_b)}$$

Modified Internal Rate of Return

$$MIRR = \left[\frac{PV_R}{PV_I}\right]^{\frac{1}{n}}\left(1 + r_e\right) - 1$$

The Black-Scholes option pricing model

$$c = P_a N(d_1) - P_e N(d_2) e^{-rt}$$

Where:

$$d_1 = \frac{\ln(P_a / P_e) + (r + 0.5s^2)t}{s\sqrt{t}}$$

$$d_2 = d_1 - s\sqrt{t}$$

The Put Call Parity relationship

$$p = c - P_a + P_e e^{-rt}$$

Present Value Table

Present value of 1 i.e. $(1 + r)^{-n}$

Where r = discount rate
n = number of periods until payment

Discount rate (r)

Periods (n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0·990	0·980	0·971	0·962	0·952	0·943	0·935	0·926	0·917	0·909	1
2	0·980	0·961	0·943	0·925	0·907	0·890	0·873	0·857	0·842	0·826	2
3	0·971	0·942	0·915	0·889	0·864	0·840	0·816	0·794	0·772	0·751	3
4	0·961	0·924	0·888	0·855	0·823	0·792	0·763	0·735	0·708	0·683	4
5	0·951	0·906	0·863	0·822	0·784	0·747	0·713	0·681	0·650	0·621	5
6	0·942	0·888	0·837	0·790	0·746	0·705	0·666	0·630	0·596	0·564	6
7	0·933	0·871	0·813	0·760	0·711	0·665	0·623	0·583	0·547	0·513	7
8	0·923	0·853	0·789	0·731	0·677	0·627	0·582	0·540	0·502	0·467	8
9	0·941	0·837	0·766	0·703	0·645	0·592	0·544	0·500	0·460	0·424	9
10	0·905	0·820	0·744	0·676	0·614	0·558	0·508	0·463	0·422	0·386	10
11	0·896	0·804	0·722	0·650	0·585	0·527	0·475	0·429	0·388	0·305	11
12	0·887	0·788	0·701	0·625	0·557	0·497	0·444	0·397	0·356	0·319	12
13	0·879	0·773	0·681	0·601	0·530	0·469	0·415	0·368	0·326	0·290	13
14	0·870	0·758	0·661	0·577	0·505	0·442	0·388	0·340	0·299	0·263	14
15	0·861	0·743	0·642	0·555	0·481	0·417	0·362	0·315	0·275	0·239	15

(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0·901	0·893	0·885	0·877	0·870	0·862	0·855	0·847	0·840	0·833	1
2	0·812	0·797	0·783	0·769	0·756	0·743	0·731	0·718	0·706	0·694	2
3	0·731	0·712	0·693	0·675	0·658	0·641	0·624	0·609	0·593	0·579	3
4	0·659	0·636	0·613	0·592	0·572	0·552	0·534	0·516	0·499	0·482	4
5	0·593	0·567	0·543	0·519	0·497	0·476	0·456	0·437	0·419	0·402	5
6	0·535	0·507	0·480	0·456	0·432	0·410	0·390	0·370	0·352	0·335	6
7	0·482	0·452	0·425	0·400	0·376	0·354	0·333	0·314	0·296	0·279	7
8	0·434	0·404	0·376	0·351	0·327	0·305	0·285	0·266	0·249	0·233	8
9	0·391	0·361	0·333	0·308	0·284	0·263	0·243	0·225	0·209	0·194	9
10	0·352	0·322	0·295	0·270	0·247	0·227	0·208	0·191	0·176	0·162	10
11	0·317	0·287	0·261	0·237	0·215	0·195	0·178	0·162	0·148	0·135	11
12	0·286	0·257	0·231	0·208	0·187	0·168	0·152	0·137	0·124	0·112	12
13	0·258	0·229	0·204	0·182	0·163	0·145	0·130	0·116	0·104	0·093	13
14	0·232	0·205	0·181	0·160	0·141	0·125	0·111	0·099	0·088	0·078	14
15	0·209	0·183	0·160	0·140	0·123	0·108	0·095	0·084	0·074	0·065	15

Annuity Table

Present value of an annuity of 1 i.e. $\frac{1-(1+r)^{-n}}{r}$

Where r = discount rate
n = number of periods

Discount rate (r)

Periods (n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0·990	0·980	0·971	0·962	0·952	0·943	0·935	0·926	0·917	0·909	1
2	1·970	1·942	1·913	1·886	1·859	1·833	1·808	1·783	1·759	1·736	2
3	2·941	2·884	2·829	2·775	2·723	2·673	2·624	2·577	2·531	2·487	3
4	3·902	3·808	3·717	3·630	3·546	3·465	3·387	3·312	3·240	3·170	4
5	4·853	4·713	4·580	4·452	4·329	4·212	4·100	3·993	3·890	3·791	5
6	5·795	5·601	5·417	5·242	5·076	4·917	4·767	4·623	4·486	4·355	6
7	6·728	6·472	6·230	6·002	5·786	5·582	5·389	5·206	5·033	4·868	7
8	7·652	7·325	7·020	6·733	6·463	6·210	5·971	5·747	5·535	5·335	8
9	8·566	8·162	7·786	7·435	7·108	6·802	6·515	6·247	5·995	5·759	9
10	9·471	8·983	8·530	8·111	7·722	7·360	7·024	6·710	6·418	6·145	10
11	10·37	9·787	9·253	8·760	8·306	7·887	7·499	7·139	6·805	6·495	11
12	11·26	10·58	9·954	9·385	8·863	8·384	7·943	7·536	7·161	6·814	12
13	12·13	11·35	10·63	9·986	9·394	8·853	8·358	7·904	7·487	7·103	13
14	13·00	12·11	11·30	10·56	9·899	9·295	8·745	8·244	7·786	7·367	14
15	13·87	12·85	11·94	11·12	10·38	9·712	9·108	8·559	8·061	7·606	15

(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0·901	0·893	0·885	0·877	0·870	0·862	0·855	0·847	0·840	0·833	1
2	1·713	1·690	1·668	1·647	1·626	1·605	1·585	1·566	1·547	1·528	2
3	2·444	2·402	2·361	2·322	2·283	2·246	2·210	2·174	2·140	2·106	3
4	3·102	3·037	2·974	2·914	2·855	2·798	2·743	2·690	2·639	2·589	4
5	3·696	3·605	3·517	3·433	3·352	3·274	3·199	3·127	3·058	2·991	5
6	4·231	4·111	3·998	3·889	3·784	3·685	3·589	3·498	3·410	3·326	6
7	4·712	4·564	4·423	4·288	4·160	4·039	3·922	3·812	3·706	3·605	7
8	5·146	4·968	4·799	4·639	4·487	4·344	4·207	4·078	3·954	3·837	8
9	5·537	5·328	5·132	4·946	4·772	4·607	4·451	4·303	4·163	4·031	9
10	5·889	5·650	5·426	5·216	5·019	4·833	4·659	4·494	4·339	4·192	10
11	6·207	5·938	5·687	5·453	5·234	5·029	4·836	4·656	4·486	4·327	11
12	6·492	6·194	5·918	5·660	5·421	5·197	4·988	4·793	4·611	4·439	12
13	6·750	6·424	6·122	5·842	5·583	5·342	5·118	4·910	4·715	4·533	13
14	6·982	6·628	6·302	6·002	5·724	5·468	5·229	5·008	4·802	4·611	14
15	7·191	6·811	6·462	6·142	5·847	5·575	5·324	5·092	4·876	4·675	15

Standard normal distribution table

	0·00	0·01	0·02	0·03	0·04	0·05	0·06	0·07	0·08	0·09
0·0	0·0000	0·0040	0·0080	0·0120	0·0160	0·0199	0·0239	0·0279	0·0319	0·0359
0·1	0·0398	0·0438	0·0478	0·0517	0·0557	0·0596	0·0636	0·0675	0·0714	0·0753
0·2	0·0793	0·0832	0·0871	0·0910	0·0948	0·0987	0·1026	0·1064	0·1103	0·1141
0·3	0·1179	0·1217	0·1255	0·1293	0·1331	0·1368	0·1406	0·1443	0·1480	0·1517
0·4	0·1554	0·1591	0·1628	0·1664	0·1700	0·1736	0·1772	0·1808	0·1844	0·1879
0·5	0·1915	0·1950	0·1985	0·2019	0·2054	0·2088	0·2123	0·2157	0·2190	0·2224
0·6	0·2257	0·2291	0·2324	0·2357	0·2389	0·2422	0·2454	0·2486	0·2517	0·2549
0·7	0·2580	0·2611	0·2642	0·2673	0·2704	0·2734	0·2764	0·2794	0·2823	0·2852
0·8	0·2881	0·2910	0·2939	0·2967	0·2995	0·3023	0·3051	0·3078	0·3106	0·3133
0·9	0·3159	0·3186	0·3212	0·3238	0·3264	0·3289	0·3315	0·3340	0·3365	0·3389
1·0	0·3413	0·3438	0·3461	0·3485	0·3508	0·3531	0·3554	0·3577	0·3599	0·3621
1·1	0·3643	0·3665	0·3686	0·3708	0·3729	0·3749	0·3770	0·3790	0·3810	0·3830
1·2	0·3849	0·3869	0·3888	0·3907	0·3925	0·3944	0·3962	0·3980	0·3997	0·4015
1·3	0·4032	0·4049	0·4066	0·4082	0·4099	0·4115	0·4131	0·4147	0·4162	0·4177
1·4	0·4192	0·4207	0·4222	0·4236	0·4251	0·4265	0·4279	0·4292	0·4306	0·4319
1·5	0·4332	0·4345	0·4357	0·4370	0·4382	0·4394	0·4406	0·4418	0·4429	0·4441
1·6	0·4452	0·4463	0·4474	0·4484	0·4495	0·4505	0·4515	0·4525	0·4535	0·4545
1·7	0·4554	0·4564	0·4573	0·4582	0·4591	0·4599	0·4608	0·4616	0·4625	0·4633
1·8	0·4641	0·4649	0·4656	0·4664	0·4671	0·4678	0·4686	0·4693	0·4699	0·4706
1·9	0·4713	0·4719	0·4726	0·4732	0·4738	0·4744	0·4750	0·4756	0·4761	0·4767
2·0	0·4772	0·4778	0·4783	0·4788	0·4793	0·4798	0·4803	0·4808	0·4812	0·4817
2·1	0·4821	0·4826	0·4830	0·4834	0·4838	0·4842	0·4846	0·4850	0·4854	0·4857
2·2	0·4861	0·4864	0·4868	0·4871	0·4875	0·4878	0·4881	0·4884	0·4887	0·4890
2·3	0·4893	0·4896	0·4898	0·4901	0·4904	0·4906	0·4909	0·4911	0·4913	0·4916
2·4	0·4918	0·4920	0·4922	0·4925	0·4927	0·4929	0·4931	0·4932	0·4934	0·4936
2·5	0·4938	0·4940	0·4941	0·4943	0·4945	0·4946	0·4948	0·4949	0·4951	0·4952
2·6	0·4953	0·4955	0·4956	0·4957	0·4959	0·4960	0·4961	0·4962	0·4963	0·4964
2·7	0·4965	0·4966	0·4967	0·4968	0·4969	0·4970	0·4971	0·4972	0·4973	0·4974
2·8	0·4974	0·4975	0·4976	0·4977	0·4977	0·4978	0·4979	0·4979	0·4980	0·4981
2·9	0·4981	0·4982	0·4982	0·4983	0·4984	0·4984	0·4985	0·4985	0·4986	0·4986
3·0	0·4987	0·4987	0·4987	0·4988	0·4988	0·4989	0·4989	0·4989	0·4990	0·4990

This table can be used to calculate $N(d)$, the cumulative normal distribution functions needed for the Black-Scholes model of option pricing. If $d_i > 0$, add 0·5 to the relevant number above. If $d_i < 0$, subtract the relevant number above from 0·5.

CA 3.8 PUBLIC SECTOR FINANCIAL MANAGEMENT

SUGGESTED SOLUTIONS

SOLUTION ONE

(a) Financial Evaluation using NPV

Year	0	1	2	3	4	5
Savings	-	4,163	4,683	5,268	5,927	6,668
Variable Costs	-	2,912	3,261	3,653	4,091	4,582
Contribution per unit	-	1,251	1,421	1,615	1,836	2,085
Additional Clients	-	160,000	270,000	300,000	300,000	230,000
Contribution	-	200,080,000	383,770,575	484,605,379	550,660,270	479,649,306
Fixed costs	-	- 55,000,000	- 60,000,000	- 65,000,000	- 70,000,000	- 75,000,000
Investment cost	- 352,000,000					50,000,000
Net Cash flows	- 352,000,000	145,080,000	323,770,575	419,605,379	480,660,270	454,649,306
Discount@8%	1.000	0.926	0.857	0.794	0.735	0.681
Present Value	- 352,000,000	134,344,080	277,471,383	333,166,671	353,285,299	309,616,177
NPV	**1,055,883,610**					

The project is financially viable as it gives a positive NPV meaning it would add value to the agency operations.

(b) Discounted Payback

Year	Cash flow	Balance
0	- 352,000,000	- 352,000,000
1	134,344,080	- 217,655,920
2	277,471,383	59,815,463

Payback **1.78 years**

The project should be accepted as it gives a payback below the one acceptable by the agency of 2.5 years.

(c) **Sensitivity Analysis**

Year	1	2	3	4	5	
Savings	666,000,000	1,264,359,375	1,580,449,219	1,778,005,371	1,533,529,633	
Discount@8%	1	0.857	0.794	0.735	0.681	
Present Value	616,716,000	1,083,555,984	1,254,876,680	1,306,833,948	1,044,333,680	

Total 5,306,316,292

Sensitivity of Savings 19.90%

The savings should decrease by more than 21.29% before the NPV before negative and non-financially viable

Variable Cost	465,920,000	880,588,800	1,095,843,840	1,227,345,101	1,053,880,327	
Discount@8%	1	0.857	0.794	0.735	0.681	
Present Value	431,441,920	754,664,602	870,100,009	902,098,649	717,692,502	
Total PVs	3,675,997,682					
Sensitivity of variable costs	28.72%					

The variable costs should increase by more than 30.73% before the NPV becomes negative and non-financially viable

Fixed costs	55,000,000	60,000,000	65,000,000	70,000,000	75,000,000	
Discount@8%	1	0.857	0.794	0.735	0.681	
Present Value	50,930,000	51,420,000	51,610,000	51,450,000	51,075,000	
Total PVs	256,485,000					
Sensitivity of fixed costs	411.67%					

The fixed costs should increase by more than 411.67% before the NPV becomes negative and non-financially viable

(d)

The business case model developed by the United Kingdom's HM Treasury is a model for planning and implementation of public sector projects to ensure that such projects are a success. The model is composed of five components which start with the strategic case. The strategic case is that the intervention should be supported by a case for change which provides the rationale why the project is required. It also provides what the outcomes of the project would be and how it fits within the wider national, regional and/ or local priorities. National priorities would relate to the whole of Zambia while the regional priorities may relate to the province with local priorities relating to the district. RATSA would have assessed whether such system is required in the related areas.

The second component is the economic case. This is the case that the intervention represents best public value. This demonstration requires the identification and appraisal of a range of alternatives with a view of producing a short list of options that would be subjected to a detailed cost benefit analysis to enable the preferred option to be subjected to techniques of dealing with risk and uncertainty such as sensitivity analysis. RATSA would need to identify a range of alternative ways of providing the service as opposed to only considering investing in new system.

The third component is the commercial case. The commercial case require demonstration that the preferred option will result in a viable procurement process. This involves the need to specify service requirements and outputs, delivery models and risk allocation and any anticipated charging regime. Accordingly, RATSA would have to demonstrate that the option that would have been put forward in the economic case would result in a viable procurement process.

The fourth case is the financial case. This should have demonstrated that the preferred option is affordable and as such, it can be funded. The capital and revenue expenditure over the period of the project must be made available together with the assessment impact that it would have on the public sector budgets. RATSA would need to demonstrate how the proposed investment would impact on the public sector budgets that may be in place as well as those for later years to come.

The fifth component is the management case. There must be the capacity to deliver the preferred option successfully in accordance with sound project management methodologies and with robust monitoring and evaluation, change management, risk identification and mitigation and other processes in place. RATSA would have to demonstrate that it has the capacity to deliver the preferred option.

SOLUTION TWO

(a) (i) Benefits of PEFA framework to countries

- Assessment of Public Financial Management (PFM) Performance: The PEFA framework provides a standardized methodology for assessing the performance of a country's public financial management system. By conducting PEFA assessments, countries can identify strengths and weaknesses in their PFM systems, enabling them to prioritize reforms and improve accountability and transparency.

- Basis for Reform Planning and Prioritization: PEFA assessments serve as a diagnostic tool for governments, helping them identify areas for improvement in their PFM systems. Based on the findings of the assessment, countries can develop action plans and prioritize reforms to address deficiencies and strengthen financial management practices.

- Monitoring and Evaluation of Reform Progress: The PEFA framework allows countries to monitor and evaluate the progress of PFM reforms over time. By conducting periodic PEFA assessments, governments can track improvements in PFM performance, measure the effectiveness of reform initiatives, and adjust strategies as needed to achieve desired outcomes.

- Enhanced Donor Coordination and Support: PEFA assessments provide a common language and set of benchmarks for donors, governments, and other stakeholders involved in supporting PFM reforms. By aligning donor assistance with the findings of PEFA assessments, countries can ensure that reform efforts are coordinated, targeted, and effectively implemented.

- Promotion of Transparency and Accountability: The PEFA framework promotes transparency and accountability in public financial management by providing a systematic approach for assessing the integrity, reliability, and timeliness of fiscal information. By enhancing the credibility of financial reporting, PEFA assessments contribute to greater trust and confidence in government institutions.

- Capacity Building and Institutional Strengthening: Through the process of conducting PEFA assessments and implementing reforms, countries can build the capacity of government institutions and officials involved in financial management. By strengthening institutional capacity, countries can improve their ability to manage public resources efficiently and effectively.

- International Benchmarking and Comparison: PEFA assessments allow countries to benchmark their PFM performance against international standards and best practices. By comparing performance indicators with peer countries, governments can identify areas of relative strength and weakness, learn from successful experiences, and adopt innovative approaches to PFM reform.

(b)(i) *Annual Appropriation* is the approved or authorized fiscal year budget permitted for withdrawal out of the Consolidated fund or any other public fund for a covered entity. This amount is what is loaded on the IFMIS system for the ministry as approved annual budget.

YTD Warrant is the amount authorized by the finance minister for release out of an appropriation to a covered entity to enable commitment or expenditure/withdrawals to be made from the Consolidated Fund. This is the available amount for a covered entity to spend out of the approved budget/appropriation.

(b)(ii) Statement of Budget Performance for the Year 2024

Budget Item	Budget Warrant Outturn	Budget Warrant Out Turn	Warrant Burn Rate
	K'000	%	%
Compensation of Employees	36,100	28	95
Goods and Services	7,750	31	99
Capital Expenditure	23,400	53	37
Total	67,250	34	87

- Budget warrant out-turn % =[budget warrant outturn/appropriation]
- Warrant burn rate = YTD payments/YTD warrant budget
- Budget warrant out – turn (K) = [appropriation – (YTD warrant – YTD Payments) – YTD payment]

(b)(iii) Budget performance statement

Budget - Warrant Outturn

The statement above shows a little above average overall budget performance with regards to government releases to the ministry. 66% of the ministry budget was released by government. This largely would affect the achievement of the ministry program of work especially capital expenditure, with only 47% of the approved budget released.

Similarly, the service delivery of the ministry would have been affected by non - release of 31% of the approved budget. The budget for compensation was not different as 28% of the appropriated budget was not released. This difference could be related to unpaid leave days or allowances.

Warrant Burn Rate

Despite the low budget warrant outturn, the ministry was able to utilize 87% of the total warrant released with Good and services recoding almost 99% utilization. This could be described at very good burn rate. However, the warrant for capital expenditure was significantly underutilized as only 37% of the amount released was used by the ministry. This could be due to multiple reasons including non-certification of works in progress by contractors and delays in contract executions among other reasons.

SOLUTION THREE

(a) The PEFA framework evaluates PFM systems based on seven pillars:

(1) Budget Reliability: The extent to which the government achieves its budgeted revenues and expenditures.
(2) Transparency of Public Finances: The availability and comprehensiveness of public financial information.
(3) Management of Assets and Liabilities: The effectiveness of managing public assets and liabilities, including debt.
(4) Policy-Based Budgeting: The alignment of the budget with national policies and priorities.
(5) Predictability and Control in Budget Execution: The reliability of the budget execution process and the control mechanisms in place.
(6) Accounting and Reporting: The quality and timeliness of financial reporting.
(7) External Scrutiny and Audit: The independence and effectiveness of external audit institutions and the scrutiny of public finances.

(b) Assessment of Current Performance:

Zambia's Public Financial Management (PFM) system has undergone several assessments, notably the 2017 PEFA evaluation. This assessment highlighted both strengths and areas requiring improvement across the seven PEFA pillars:

(1) Budget Reliability: The 2017 PEFA assessment indicated substantial variations between budgeted and actual expenditures, particularly in administrative heads and economic classifications like subsidies. This variability undermines fiscal discipline and the predictability of public finances.
(2) Management of Assets and Liabilities: Weaknesses were identified in managing public assets and liabilities, including inadequate monitoring systems for expenditure arrears and public debt.
(3) Transparency of Public Finances: The assessment revealed that public access to fiscal information was limited, hindering stakeholders' ability to assess government performance and policy implementation.
(4) Accounting and Reporting: Financial reporting was delayed and lacked user-friendliness, affecting the timely availability of information for decision-making.
(5) External Scrutiny and Audit: The external audit function faced challenges, including limited independence and effectiveness, which impeded thorough scrutiny of public finances.
(6) Policy-Based Budgeting: The budget preparation process lacked transparency, with competing claims not assessed effectively, leading to misalignment with national development priorities.
(7) Predictability and Control in Budget Execution: The budget execution process was unreliable, with inadequate control mechanisms, resulting in unpredictable resource allocation and inefficient service delivery. (

SOLUTION FOUR

(a) *A public-public partnership (PUP)* is simply a collaboration between two or more public authorities or non-profit organizations, based on solidarity, to improve the capacity and effectiveness of one partner in providing public services like water or sanitation services.

This can be contrasted with a *public-private partnership*, which is a collaboration between a public and private entity.

The *public-public partnership* is a peer relationship forged around common values and objectives, which exclude profit-seeking. Neither partner expects a commercial profit, directly or indirectly.

P*ublic-public partnerships* have a number of advantages over Public Private Partnerships and some of these are:

- Mutual understanding of public sector objectives and ethos since participating parties are fully knowledgeable of the public sector environment.
- Non-commercial relationship as both entities is not profit making and therefore there will be low risk to contracting entity;
- Transparency and accountability are enhanced since there is not trade secret concerns of the parties;
- Unlimited collaboration among the public sector plays is there are several entities operating in several sectors of the economy;
- Lower transaction costs particularly administrative costs since there is no profit loading.
- Possibility of reinvesting 100% of available financial resources into the public sector therefore strengthening the capacity of the sector.
- There is a possibility of long-term gain in capacity-building of public sector entities, which will improve the overall delivery of public service.
- Develops closer linkage between the government sector and non-governmental organisations in the provision of public service.

(b) Risks the PPP contactor is exposed to:

Construction Risk
This includes the many challenges that may be encountered during the construction phase of a project, such as cost overruns, building material defects, construction delays, planning regulation, structural integrity issues with existing infrastructure, technical deficiencies, health risk and worksite accidents.

Financing risk
This describes the risk that the full funding required for the project will not be obtained or will be obtained at interest rates that would prevent the project from achieving its expected benefits. This might be due to the circumstances of the specific parties to the arrangement (for example, their credit status or debt limitations), or investor perceptions of the risk of a project.

For example, the contractor in accordance with this PPP contract obtains a US dollar denominated debt when the exchange rate was K21 to K26. If the exchange rate deteriorates in the course of the period to K21 to K30, who bears the exchange rate risk?

Demand Risk
This risk relates to variability in the amount of service required or consumed by users of the hospital. The major User in this case is the University itself, and third-party users such as people living in that community. For instance, if the University enters into a BOT arrangement with the contractor to build a modern hospital on university land and receive the user fees within the contract period in the recoupment of the investment returns. In this contract, the demand risk associated in this type of investment model is that if the hospital is constructed, there is a possibility that the patronage of the hospital facility could be low, which could pose a problem in recovering the full investment by the contractor, given that the investment has to be recovered in a fixed period.

Risks that the University is exposed to:

Operational and Maintenance risk
This risk encompasses a broad range of risks that exist after the hospital facility becomes operational. Examples include all specific risks that could pose a challenge to successfully operate and maintain the hospital facility to provide quality health delivery services to the community. These risks could include fees increases or shortages of materials, increases in labour costs, damage as a result of natural disasters, costs related to deferring maintenance, and be considered specific components of operational and maintenance risk.

Residual value risk

This risk relates to the possible difference between the market price of the hospital facility at the end of the PPP arrangement and the original market price expectation. For example, the hospital facility after the 25 years' period is expected to have residual value of K5 million but unfortunately the operator fails to maintain the hospital well in the last 10 years so the residual value at the time of transfer is K 1 million. Who bears the loss of K4 million?

Availability risk

This is the risk that the contractor will not have available resources to expand in order to handle the increase in demand of their services, when the need arises better than University could have done.

SOLUTION FIVE

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(a) Explain the potential issues that may arise from on:
(i) Foreign borrowing as a significate source of government financing
- The requirement to pay interest and repay capital restricts future spending resulting in key developmental programmes not being financed
- Issues of foreign financing require repayments to be made in in foreign currency, resulting in depreciation of the local currency which can lead to significant higher repayments

(ii) Domestic borrowing as significant source of funding
- Crowding out of the private sector – when the money markets finances Government spending, the increase in demand for money raises interest rates thus increasing cost of borrowing.
- Investments in the country may be affected by high interest rates which may be as a result of government borrowing.
- High inflation which may arise from high interest rates will have an effect on effective allocation of resources.
- Compels future generations to work harder to fulfill the debt obligations to maintain financial and economic stability

(b) State the challenges in increasing Domestic Resource Mobilization in low income countries.
-
Challenges in Increasing Domestic Resource Mobilization in Low-Income Countries LICs face two broad categories of challenges:

(i) Structural and Institutional Challenges Several factors in a country, ranging from the nature of the economy to the political setup and the quality of governance, have an impact on revenue mobilization. These factors are especially challenging, as they are difficult to alter in the short run.

(ii) Structural Features of an Economy Several structural features of an economy contribute to the ability of a country to generate fiscal revenues, including (a) per capita income; (b) share of domestic trade, imports, and exports; (c) degree of urbanization; (d) level of development of the corporate sector; (e) importance of the tourism industry; (f) share of agriculture in GDP and size of the informal sector; (g) existence of an extractive sector, including mining, oil, and gas; (h) levels of literacy, education, and human capital; (i) establishment of tax practitioners and accounting professionals; and (j) well-developed information technology, among others.
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(iii) The Political Environment and Impact of Interest Groups Political leadership plays a major role in revenue mobilization. Tax reform and technical assistance restricted to technical, apolitical aspects of taxation have failed to capture the reality of policy making and revenue collection in many countries. This failure is rooted in the fact that tax reform affects the distribution of resources and wealth and almost invariably confronts strong vested interests that oppose the reforms.

(iv) Corruption and Rent-Seeking Behavior in Administration and Politics There are two levels of principal-agent relationship in taxation. At the first level, the people are the "principal," through their role in electing governments, and the tax department is the "agent" of the people and the government. At the second level, in the process of revenue collection, the role is reversed, and the tax depart ment is the "principal," while taxpayers are the "agent." Just as in any principal agent relationship, the agents may develop their own agenda, including inappropriate behavior, rent seeking, and corruption. Corruption in government in general and in taxation in particular adversely affects the development and performance of the private sector. It raises transaction costs and uncertainty in doing business, and it can constitute a significant "tax" on the private sector. In LICs, motivation to earn illegal income may be strong because civil service salaries are low or declining. Sometimes the tax department along with other government agencies may even raise revenues for their political masters.

(v) Complexity of the Tax System With gradual and incremental changes in tax laws in pursuit of higher tax reve nues, as well as in response to political pressure, tax structures often become complex in nature. Sometimes governments favor minor taxes and fees, which are costly to comply with and administer, do not generate enough revenues, and end up becoming "nuisance taxes." Sometimes they favor major taxes that have a narrow base and high rates, which can be less effective in raising revenue, while increasing the costs of both administration and taxpayer compliance. Some countries have a VAT base that is too narrow, has too many rates, and has a low threshold. Though intended to generate higher revenues or promote greater equity, such VATs neither mobilize more revenue nor promote equity .

(vi) Rigidities in Tax Administration Tax administration may also suffer from rigidities affecting DRM, including the inability to forecast revenue accurately or at all; the setting of unrealistic revenue .targets; the failure to assess the tax base, tax potential, or tax gap; and the passage of purely technical reforms of the tax administration. These are mentioned in turn. Revenue forecasting is perhaps the weakest link in the chain between tax structure and revenue collected. Apart from estimating tax revenues for budgeting purposes, revenue forecasting is crucial for analyzing the impact of tax policies and economic changes or shocks.

END OF SUGGESTED SOLUTIONS