CA ZAMBIA PROGRAMME EXAMINATIONS

CA CERTIFICATE IN ACCOUNTANCY

CA 1.1: FINANCIAL ACCOUNTING

MONDAY 9 DECEMBER 2024

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

<u>QUESTION ONE</u>

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

1.1 The IASB's Conceptual Framework for Financial Reporting lists two fundamental qualitative characteristics of financial statements, one of which is faithful representation.

Which of the following is NOT a characteristic of faithful representation?

A. Completeness.

B. Neutrality.

C. Free from error.

D. Prudence.

(2 marks)

1.2 Which of the following statements regarding definition of impairment loss is true?

A. Its when the fair value less costs to sell of an asset is less than its value in use.

B. It is when the carrying amount of an asset exceeds its recoverable amount.

C. It is when fair value of an asset is more that its recoverable amount.

D. It is when recoverable amount of an asset exceeds its fair value less costs to sell.

(2 marks)

1.3 Mukolo Co. is preparing the final accounts for the business. The cost of the items in closing inventory is K418,750. This includes some items which cost K19,600 and which were damaged in transit. You have estimated that it will cost K3,600 to repair the items, and they can then be sold for K12,000.

What is the correct inventory valuation for inclusion in the final accounts of Mukolo Co?

A. K391,500

B. K407,550

C. K415,150

D. K429,950

(2 marks)

1.4 After completing the final accounts, Kempo identified that there was overstatement of a year-end accrual.

How will Kempo's net profit and net assets be affected after the error is corrected?

	Net profit	*Net assets*
A.	Increased	Increased
B.	Increased	Decreased
C.	Decreased	Increased
D.	Decreased	Decreased

(2 marks)

1.5 During the reconciliation of trade payables general ledger control account; an invoice received from a supplier for K17,500 had been recorded in the trade payables general ledger control account as K15,700. It was correctly entered on the supplier's individual account.

What is the correcting entry in the trade payables general ledger control account?

A. Debit K15,700

B. Credit K15,700

C. Credit K1,800

D. Debit K1,800

(2 marks)

1.6 What double entry would be posted if a sole trader starts business by introducing his cash savings and also pays business payables with personal savings?

A.	Dr bank	Cr Payables	Cr Capital
B.	Dr Capital	Cr Payables	Cr Bank
C.	Dr Payables	Dr Bank	Cr Capital
D.	Dr Payables	Cr Capital	Cr Bank

(2 marks)

1.7 Which of the following statements is correct?

A. Carriage outwards will appear on the credit side of the trial balance.

B. Returns inwards will appear on the debit side of the trial balance.

C. Returns outwards will appear on the debit side of the trial balance.

D. Bank loan will appear on the debit side of the trial balance.

(2 marks)

1.8 Pezo purchased some plant and equipment on 1 July 2023 for K640,000. The scrap value of the plant in ten years' time is estimated to be K5,000. Pezo's policy is to charge depreciation on the straight-line basis, with a proportionate charge in the year of acquisition.

What is the carrying amount of the plant and equipment in Pezo's financial statements as at 30 September 2023?

A. K624,125

B. K619,125

C. K576,500

D. K490,500

(2 marks)

1.9 Which of the following entries would result in the trial balance not agreeing?

A. An invoice for K7,550 for rents and rates has been omitted from the records.
B. A payment made to a supplier K1,900 has been posted to the accounts twice.
C. A payment made to a supplier K2,450 has been recorded in the bank account but no other entry has been made.
D. A payment for charity K5,700 has been charged to the plant and property account.

(2 marks)

1.10 Which of the following items could appear in a company's statement of cash flows?

(i) Surplus on revaluation of non-current assets

(ii) Proceeds of issue of shares.

(iii) Proposed dividends.

(iv) Irrecoverable debts written off.

(v) Dividends received.

A. (i), (ii) and (v) only

B. (ii), (iii), (iv) and (v) only

C. (ii) and (v) only

D. (iii) and (iv) only.

(2 marks)

[Total: 20 Marks]

SECTION B

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

<u>QUESTION TWO</u> – (COMPULSORY)

(a) Kabwela and Mushili formed a partnership business operating as haulage contractors. The following are the account balances and extracts from their Partnership Agreement:

	Kabwela	**Mushili**
	K	K
Partners' capital accounts	240,000	180,000
Partners' current accounts	20,000	15,000

Kabwela made drawings during the year as follow:

31 January 2023	K6,000
31 May 2023	K8,000
31 July 2023	K10,000

Mushili made drawings during the year as follows:

30 November 2022	K8,000
30 April 2023	K10,000
30 June 2023	K12,000

The partners share profits and losses in the ratio of 6:4 and allow interest on capital and current account balances at the rate of 12% per annum. Interest on drawings is chargeable at the rate of 10% per annum. Kabwela is entitled to a salary of K18,000 per annum.

The profit made for the year to 30 September 2023 from haulage fees after deducting all operating expenses was K125,600.

At the end of the year, the profit computation did not take care of a consignment of purchases just received before year end with the invoice value of K8,850. The partners had also paid K3,250 in advance for diesel and oil but this was not taken into account when calculating profit.

Required:

(a) Calculate the amounts of interest chargeable on

(i) Capital balances. (2 marks)

(ii) Drawings for the year ended 30 September 2023. (6 marks)

(b) Prepare the Partnership appropriation account for the year ended 30 September 2023. (6 marks)

(c) Prepare the partners current accounts as at 30 September 2023. (6 marks)

[Total: 20 Marks]

QUESTION THREE

(a) Using examples, explain three (3) differences between revenue expenditure and capital_expenditure. (6 marks)

(b) State two (2) internal users and two (2) external users of accounting information and their information needs. (6 marks)

(c) Identify and explain any four (4) elements of financial statements. (6 marks)

(d) Explain what is meant by accruals basis of accounting. (1 mark)

(e) Explain what is meant by going concern basis of accounting. (1 mark)

[Total: 20 Marks]

QUESTION FOUR

Namoonga, a trainee Finance Officer, applied for internship in PROFED Ltd during her inter-semester break. As part of the screening process, she has been given the following cash book and bank statement for her immediate attention:

PROFED LTD'S CASH BOOK FOR THE MONTH OF DECEMBER, 2023

2023			*K*	*2023*			*Cheque #.*	*K*
Dec	1	Balance b/d	1,862	Dec	1	Electricity	864	243
Dec	4	Mwenya	212	Dec	2	Miswalo	865	307
Dec	9	Kalungulungu	185	Dec	5	Chitoshi	866	174
Dec	19	Michelo	118	Dec	6	Mwila	867	17
Dec	26	Mukanaka	47	Dec	10	Zulu	868	95
Dec	27	Leo	279	Dec	14	Kando	869	71
Dec	29	Choonya	98	Dec	16	Rent	870	161
Dec	30	Tembo	134	Dec	20	Malambo	871	25
				Dec	21	Lwando	872	37
				Dec	22	Siwale	873	12
				Dec	31	Balance c/d		1,793
			2,935					**2,935**

On 5 January 2024, PROFED Ltd downloaded the official bank statement for December 2023. The statement was as follows:

MERIDIEN BANK Co.
PROFED Ltd: Statement of Account for the Month of December, 2023

Date		*Particulars*	*Debits*	*Credits*	*Balance*
2023			**K**	**K**	**K**
Dec	1	Balance			1,862
Dec	5	Cheque No. 417864	243		1,619
Dec	5	Dividend		26	1,645
Dec	5	Bank Giro Credit		212	1,857
Dec	8	Cheque No. 417866	174		1,683
Dec	10	Cheque No. 417867	17		1,666
Dec	11	Sundry Credit		185	1,851
Dec	14	Standing Order	32		1,819
Dec	20	Cheque No. 417865	307		1,512
Dec	20	Bank Giro Credit		118	1,630
Dec	21	Cheque No. 417868	95		1,535
Dec	21	Cheque No. 417870	161		1,374
Dec	24	Bank charges	18		1,356
Dec	27	Bank Giro Credit		47	1,403
Dec	28	Direct Debit	88		1,315
Dec	29	Cheque No. 417873	12		1,303
Dec	29	Bank Giro Credit		279	1,582
Dec	31	Cheque No. 417871	25		1,557

Required

(a) Prepare PROFED Ltd's updated cash book balance as at 31 December 2023. (10 marks)

(b) Draw up PROFED Ltd's bank reconciliation statement as at 31 December 2023. (10 marks)

[Total 20 Marks]

QUESTION FIVE

The opening balances on the Statement of Changes in Equity for Ryan Limited as at 1 January 2023, was as follows:

Share capital	Share premium	Retained Earnings	Revaluation Surplus	Total
K	K	K	K	K
500,000	300,000	225,000	120,000	1,145,000

The following information was known as at 31 December 2023:

(i) 10,000; K1 shares had been issued on 1 June 2023 at a premium of K1.40 per share

(ii) Retained earnings for the year were K35,200 after dividends of K20,000.

(iii) Land was revalued upwards by 45,000 during the year.

(iv) On 1 February 2023, Ryan made a 1 for 4 bonus issues, utilizing the share premium account.

(v) Products worth K3,250 sold in 2022, and included in revenue for that year, were incorrectly included in closing inventory at 31 December 2022 and hence were in the opening inventory 1 January 2023. This is regarded as a fundamental error.

Required:

(a) Prepare the statement of changes in equity for the year ended 31 December 2023. (11 marks)

(b) Define the following, in accordance with the conceptual framework for financial reporting, giving an example of each:

(i) Asset (2½ marks)

(ii) Liability (2½ marks)

(c) State and explain the two (2) fundamental qualitative characteristics. (4 marks)

[Total: 20 Marks]

QUESTION SIX

(a) (i) Differentiate between an Accounting concept and an accounting policy, and give two (2) examples of each. (4 marks)

(ii) Identify and explain, the basic accounting principle which influences how prepayments are to be treated in final accounts. (2 marks)

(iii) Explain the purpose of depreciation charge in the statement of profit or loss. (2 marks)

(b) Ellis, a newly qualified Accountant, has prepared draft accounts for a client for the year ended December 2023, but has not dealt with the adjustments for accrued expenses, prepaid expenses, irrecoverable debts, allowance for receivables and depreciation.

Below is the draft statement of financial position prepared by Ellis:

Draft statement of financial position as at 30 December 2023

Assets:	K	K
Non-Current assets		
Plant and Machinery (Cost)	875,000	
Accumulated Depreciation (1.1.2023)	(427,000)	
		448,000
Current Assets		
Inventory	211,695	
Trade receivables	747,055	
Cash and bank balance	31,400	990,150
		1,438,150

Capital and Liabilities

Proprietor's capital	1,005,350
Current Liabilities	
Trade payables	432,800
	1,438,150

Ellis has also given the following information about the remaining adjustments to be provided

1. The last fixed bill paid for electricity in the sum of K34,350 covered a three months period to 31 October 2023.
2. Rent of K142,500 for nine months to March 2024 was paid at the beginning of September 2023.
3. Depreciation is to be provided at a rate of 20% per annum on reducing balance method.
4. The trade receivables figure of K747,055, in the draft accounts, is stated after deducting allowance for doubtful debts of K39,500 from the total receivables balance of K786,555.
5. The gross trade receivables balance of K786,555 includes a balance of K3,300 which has been outstanding for 10 months. The client has decided to write this balance off his books.
6. The policy of the client is to allow for receivables on the basis of the length of time the debt has been outstanding. The aged analysis of trade receivables as at 31 December 2023 and the required allowance is shown below:

Age of Debt	**Balance**		**Allowance required**
	K		
0-30 days	First	626,375	Nil
31-60 days	Next	136,000	20% of balances
Over 60 days	Next	24,180	75% of balances
		786,555	

Required:

Calculate the correct balances as at 31 December 2023 for each of the following:

(i) Accrued expenses (1 mark)

(ii) Prepaid expenses (1 mark)

(iii) Allowance for receivables (2 marks)

(iv) Accumulated Depreciation (2 marks)

(v) Prepare a revised statement of financial position as at 31 December 2023. (6 marks)

[Total: 20 Marks]

END OF PAPER

CA 1.1 FINANCIAL ACCOUNTING SUGGESTED SOLUTIONS

SOLUTION ONE

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

SOLUTION TWO

a) Calculations of interest

			Kabwela	Mushili
			K	**K**
(i)	Interest on Capital - (Kabwela)	12% x 240,000	28,800	
	Interest on Capital - (Mushili)	12% x 180,000		21,600
(ii)	Interest on Drawings:			
	Kabwela	10% x 6,000 x 8/12	400	
	Kabwela	10% x 8,000 x 4/12	267	
	Kabwela	10% x 10,000 x 2/12	167	
			834	
	Mushili	10% x 8,000 x 10/12		667
	Mushili	10% x 10,000 x 5/12		417
	Mushili	10% x 12,000 x 3/12		300
				1,384

Working on Adjusted profit:

		K	
Profit per drafts statement of profit or loss		125,600	
	Add: Prepayment of Major Repairs	3,250	
			128,850
Less:	Invoice of spares just received	(8,850)	
	Adjusted net profit	120,000	

b) Kabwela and Mushili Partnership

Profit and loss appropriation account for the year ended 30th September 2023:

	K	K
Profit per draft statement of profit or loss (w) above		120,000
Add: Interest on Drawings: Kabwela	834	
Mushili	1,384	
		2,218
Adjusted net profit		122,218

Interest on Capital:	Kabwela	28,800	
		Mushili	21,600
Interest on Current A/C	Kabwela	2,400	
	Mushili	1,800	
			(54,600)
Salary-Kabwela			(18,000)
			49,618
Share of residue profit:	Kabwela 49,618 x 6/10	29,771	
	Mushili 49,618 x 4/10	19,847	

(49,618)
0

c) CURRENT ACCOUNTS FOR THE PARTNERS:

	KABWELA		MUSHILI	
Descriptions	**DR**	**CR**	**DR**	**CR**
	K	**K**	**K**	**K**
Balance b/d		20,000		15,000
Interest on capital		28,800		21,600
Salary -Kabwela		18,000		-
Interest on Current Account		2,400		1,800
Share of Profits		29,771		19,847
Interest on Drawings	834		1,384	
Drawings	24,000		30,000	
Balances c/d	74,137		26,863	
	98,971	**98,971**	**58,247**	**58,247**
Balances b/d		74,137		26,863

SOLUTION THREE

(a) Capital expenditure is generally of a one-off expense, and its benefit is derived over several accounting periods, for example replacing a machine, whereas revenue expenditure is recurring and it is incurred repeatedly, for example repairing a building.

Capital expenditure appears in the statement of financial position and is a debit to the non-current asset account and a credit to accounts payable, whereas revenue expenditure does not and is a debit to the statement of profit or loss and a credit to accounts payable.

The whole of revenue expenditure is shown as an expense in the statement of profit or loss whereas the cost spread on capital expenditure is shown in the income statement (depreciation) with the balance shown in the statement of financial position.

The effect of capital expenditure is long-term, its benefits are not exhausted within one year and are received for a number of years, whereas with revenue expenditure, the benefit is received within one accounting year.

Generally capital expenditure has physical assets, e.g. a building, except for intangible assets whereas revenue expenditure has no physical existence because it is used on items which are used in the business, e.g. electricity. With regards to assets, revenue expenditures are those that simply maintain an asset for regular use in company operations. For example, maintenance and repair of a computer server. Capital expenditure is for new assets or major improvements that extend the life of an asset. For example, a replacement, re-conditioned server.

(b) i) Internal users of accounting information

- **Management -** Need accounting information to ensure that the different functional areas of the organization are working together as a corporate body to achieve overall objectives of the organization rather than their own individual objectives
- **Employees** - interest lies in seeing that the company keeps on operating (job security), also they want to know if the company is being fair to them i.e. they are getting a reasonable share of the profit their effort is generating.
- **Trade Unions** - They use the published accounts to decide when to press management for better remuneration and improved condition of service

ii) External Users

- **Shareholders** - Two kinds of needs - stewardship (how their funds are being used) and investment when to buy more shares or sell off their shares).
- **Bankers -** Assess the liquidity of the company.
- **Creditors -** Interested in the liquidity of the company to help them assess if the company will be able to pay them as and when their liability falls due.
- **Government agencies - e.g. ZRA** - For statutory obligation purposes like payment of corporate taxes.
- **Stock Market** - Regulate the companies and so are interested in their financials.
- **General Public**

(c) The elements of financial statements are:

Asset: a present economic resource controlled by the entity as a result of past events. An economic resource is a right that has the potential to produce economic benefits. An entity controls an economic resource if it has the present ability to direct the use of the economic resource and obtain the economic benefits that may flow from it. This prevents other parties from exercising control. The existence of an asset, particularly in terms of control, is not reliant on:

(a) Physical form (applying the principle to patents and copyrights)

(b) Legal rights (applying the principle to leases)

Transactions or events in the past give rise to assets; those expected to occur in the future do not in themselves give rise to assets. For example, an intention to purchase a non-current asset does not, in itself, meet the definition of an asset.

Liability: A present obligation of the entity to transfer an economic resource as a result of past events. An essential characteristic of a liability is that the entity has a present obligation. An obligation is a duty or responsibility that an entity has no practical ability to avoid. An obligation is always owed to another party (or parties).

Equity: The residual interest in the assets of the entity after deducting all its liabilities.

Income: Increases in assets or decreases in liabilities that result in increases in equity, other than those relating to contributions from holders of equity claims.

Expenses: Decreases in assets or increases in liabilities that result in decreases in equity, other than those relating to distributions to holders of equity claims.

(d) Accrual accounting basis: Financial statements are prepared on the basis of recording income and expenditure when they are incurred and not when they are paid for. Expenses should always match the income that generates them. Example prepayments and accruals.

(e) Going concern: Financial statement should be prepared on the basis that the entity will continue for the foreseeable future. Example inventory is valued at lower of cost or net realizable value.

SOLUTION FOUR

(a)

PROFED LTD'S UPDATED CASH BOOK FOR THE MONTH OF DECEMBER, 2023

2023			*K*	*2023*			*K*
Dec	31	Balance b/d	1,793	Dec	31	Bank charges	18
Dec	31	Dividend	26	Dec	31	Standing order	32
				Dec	31	Direct debit	88
						Balance c/d	1,681
			1,819				**1,819**

(b) PROFED Ltd

BANK RECONCILIATION STATEMENT AS AT 31 DECEMBER 2023

	K	**K**
Balance per bank statement		1,557
Add unrecorded Lodgments:		
Choonya	98	
Tembo	134	
		232
Less unpresented cheques:		
Kando (Cheque No. 869)	71	
Lwando (Cheque No. 872)	37	
		(108)
Balance per Updated cash book		**1,681**

SOLUTION FIVE

(a) Statement of changes in equity for the year ended 31st December 2023 for Ryan Ltd company

	Share capital	Share premium	Retained earnings	Revaluation surplus	Total
	K	K	K	K	K
Balance as at 1st January 2023	500,000	300,000	225,000	120,000	1, 145,000
Prior period error adjust			(3, 250)		(3, 250)
Restated balance	500,000	300,000	221,750	120,000	1,141, 750
Share issue	10, 000	14, 000	-	-	24, 000
Dividends	-	-	(20, 000)	-	(20, 000)
Profit for the year	-	-	55, 200*		55, 200
Revaluation gain	-	-	-	45, 000	45,000
Bonus Issue 500,000 X 1/4	125,000	(125,000)	-	-	-
Balance at 31st December 2023	**635,000**	**189, 000**	**256, 950**	**165, 000**	**1,245,950**

* Adjusted Profit for the year (35,200 + 20,000) = 55,200

(b) i) An asset is a resource, controlled by an entity as a result of past events from which future economic benefits are expected to flow to the entity**.** An example is property, plant and equipment.

ii) A liability is a present obligation of an entity as a result of past events for which an outflow of resources embodying economic benefits is expected. An example is a loan.

(c) The **two** fundamental qualitative characteristics are:

(i) Relevance

Information must be relevant to the decision-making needs of users. Information is relevant if it can be used for predictive and/or confirmatory purposes.

• It has **predictive value** if it helps users to predict what might happen in the future.

• It has **confirmatory value** if it helps users to confirm the assessments and predictions they have made in the past and only information that is material can be relevant.

(ii) Faithful representation

To be useful, financial information must not only represent relevant phenomena, but it must also faithfully represent the phenomena that it purports to represent in both words and numbers.

A perfectly faithful representation would have three characteristics. It would be;

• complete;

• neutral and;

• free from error

SOLUTION SIX

a)

(i) Accounting concepts are basic rules that guide preparers of financial statements on how to make entries and assist users to check whether the financial statements have been properly prepared (examples: accruals concept, prudence concept, double entry etc.);
Accounting policies: are the specific accounting bases judged by business enterprises to be the most appropriate to their circumstances and adopted by them for the purpose of preparing their financial statements. Examples: valuation of inventories (FIFO or Average cost, Revaluation model under IAS 16 property, plant and equipment etc.)

(ii) The accruals or matching concept requires that the revenue earned in a period is matched with the expenses incurred in earning that profit. Therefore, if a payment includes a prepayment for the following period, this must be excluded from expenses in the statement of profit or loss. In other words, costs are recognized on the basis of the period covered by those costs, not by the timing of the payment.

(iii) Depreciation is a way of charging for the use of an asset in earning the current period's profits. It spreads the cost of a non-current assets over its useful life. This is an example of accrual or matching concept.

b)

i) Accrued expenses electricity (2/3 *34,350) = 22,900
ii) Prepaid expenses
Rent (3/9 *142,500) = 47,500

iii) Allowance for receivables

		K	K
31-60 days	136,000 *20%		27,200
Over 60 days		24,180	
Irrecoverable debt		(3,300)	
	20,880 * 75%		15,660
Allowance required			42,860
Existing allowance			39,500
Increase in allowance			3,360

iv) Accumulated Depreciation

Balance as at October 2022	427,000
Charge for the year (448,000* 20%)	89,600
	516,600

v) Statement of financial position

	K	K
Non-Current Assets		
Plant and Machinery (cost)		875,000
Accu'm dep'n (a(ii))		(516,600)
		358,400
Current Assets		
Inventory	211,695	
Trade receivables (WK 1)	740,395	
Prepaid rent (a(ii))	47,500	
Cash and bank balance	31,400	1,030,990
		1,389,390
Capital (wk2)		933,690
Current Liabilities		
Trade payables	432,800	
Accruals (ci)	22,900	455,700
		1,389,390

Workings

	K	K
1.Trade receivables		
Receivables		747,055
Irrecoverable debt		(3,300)
Increase in allowance		(3,360)
		740,395
2.Capital		
Capital b/f		1,005,350
Add prepaid rent		47,500
		1,052,850
Less: Accrued Electricity	22,900	
Irrecoverable debt	3,300	
Depreciation Charge	89,600	
Increase in allowance	3,360	(119,160)
		933,690

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA CERTIFICATE IN ACCOUNTANCY

CA 1.2 BUSINESS STATISTICS

WEDNESDAY 11 DECEMBER 2024

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

INSTRUCTIONS TO CANDIDATES

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

2. This paper is divided into TWO (2) sections:
   Section A: Ten (10) compulsory multiple choice questions.
   Section B: There are FIVE (5) questions in this section. Attempt QUESTION TWO (2) and any other THREE (3) questions from the remaining FOUR (4) questions.

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

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

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

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

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

8. Present legible and tidy work.

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

10. A mathematical standard formulae book must be provided to you. Request for one if not given by the Invigilator.

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

SECTION A – (COMPULSORY)

Attempt all ten (10) multiple choice questions

<u>QUESTION ONE</u>

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

1.1 In statistical analysis, what is a parameter?

A. A sample characteristic.
B. A population characteristic.
C. An unknown measure.
D. A normally distributed observation.

(2 marks)

1.2 A building contractor is submitting bids to two jobs A and B. The probability that he will win job A is P(A) = 0.25 and that for B is P(B) = 0.30. If winning job A and B are independent, find $P(A \cap B)$

A. 0.075
B. 0.55
C. 0.475
D. 0.833

(2 marks)

1.3 A sample of lengths (in meters) of recent oil drilling was as follows:
16,000, 13,000, 17,000, 18,000, 16,000, 21,000.

Compute the sample mean.

A. 16,500
B. 16,000
C. 16,833
D. 10,100

(2 marks)

1.4 In regression analysis which of the following represent the correct range of values of the coefficient of determination.

A. 0 to 1
B. -1 to 0
C. -1 to 1
D. Above 1

(2 marks)

1.5 The price of a 25 kg bag of mealie meal is 40% higher in the year 2023 compared to the price in the year 2022. If the price was K180 in the year 2022, what is the price in the year 2023?

A. K72
B. K108
C. K252
D. K 288

(2 marks)

1.6 An experiment to measure the weight of some packs of construction material indicated that the mean was 34 Kg with a standard deviation of 10 Kg. If the measures are normally distributed, what is the probability that the weight of a selected pack is less than 45 Kg.

A. 0.1100
B. 0.8643
C. 0.1357
D. 0.2222

(2 marks)

1.7 Which of the following measures is most affected by outliers?

A. Median
B. Range
C. Mean
D. coefficient of Skewness

(2 marks)

1.8 An analyst for Boom detergent has estimated a linear trend model

$$\hat{y} = 215.5 + 10.2t$$

Where $\hat{y}$ is the predicated revenue (in thousands) in year t with $t = 1$ for 2005, $t = 2$ for 2006 and so forth. Predict revenue in 2013.

A. 297,100
B. 307,300
C. 317,500
D. None of the above

(2 marks)

1.9 The mean salary (in thousands kwacha) of a group of employees is K80.00. Find the coefficient of variation of the data if the variance of the data is 144.

A. 0.56
B. 6.66
C. 1.8
D. 0.15

(2 marks)

1.10 A sports club wishes to sponsor a tournament. They assess the cost by splitting categories as shown in the table below.

Category	Expenditure (K)
Advertising	2,000
Sports kits	x
Player prizes	9,000
Best team	30,000
Facility Rent	y

Given that the total cost is K60,000 and sports kits represent 15% of the total cost, calculate the cost of facility rent (y).

A. K60,000
B. K9,000
C. K50,000
D. K10,000

(2 marks)
[Total: 20 Marks]

SECTION B

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

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

The table below shows a Verbal Reasoning test score, x, and an English test score, y, for each of a random sample of eight children who took both tests.

Child	A	B	C	D	E	F	G	H
x	112	113	110	113	112	114	109	113
y	69	65	75	70	70	75	68	76

Required:

(a) Calculate the value of the coefficient of correlation. (9 marks)

(b) Comment briefly, in context, on the result obtained in part (a). (1 mark)

(c) Calculate the equation of the regression line. (6 marks)

(d) Interpret the slope of the regression line. (1 mark)

(e) Find the English test score for a child who has a Verbal Reasoning test score of 135. (3 marks)

[Total: 20 Marks]

<u>QUESTION THREE</u>

A random sample of 250 third year Biostatistics students majoring in Entomology or Biodiversity at a large university is selected. These students are asked whether or not they are happy with their majors. The following table gives the results of the survey. Assume that none of these 250 students is majoring in both areas.

	Happy (H)	**Unhappy (U)**
Entomology (E)	80	20

Biodiversity (B)	115	35

If one (1) student is selected at random from this group, find the probability that this student is:

(a) Happy with the choice of major (2 marks)

(b) An Entomology major (2 marks)

(c) A Biodiversity major (2 marks)

(d) A Biodiversity major given that the student is happy with the choice of major. (3 marks)

(e) Unhappy with the choice of major given that the student is a Entomology major (3 marks)

(f) An Entomology major and is happy with that major (2 marks)

(g) A Biodiversity major or is unhappy with his or her major (4 marks)

(h) Are the events "Entomology major" and "happy with major" independent? Are they mutually exclusive? Explain why or why not. (2 marks)

[Total: 20 Marks]

QUESTION FOUR

(a) Briefly describe the following terms with an example: quantitative and qualitative variables. (4 marks)

(b) Indicate whether the following are quantitative or qualitative variables.

(i) Hair colour (1 mark)

(ii) Sales volume of a car firm (1 mark)

(iii) Sex of an individual (1 mark)

(iv) Number of persons unemployed in Zambia (1 mark)

(v) The age of a job applicant (1 mark)

(vi) Names of Quantitative analysis topics (1 mark)

(c) Calculate seven (7) - yearly moving averages of the number of cars sold in Zambia from the following figures:

Year	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Number of cars sold	200	120	280	240	160	320	360	400	320	360	360

(10 marks)

[Total: 20 Marks]

QUESTION FIVE

(a) A doctor asked ten (10) of his patients, who were smokers, how many years they had smoked. In addition, for each patient, he gave a grade between 0 and 100 indicating the extent of their lung damage. The following table shows the results:

Candidate	A	B	C	D	E	F	G	H	I	J
Number of Years Smoked	15	22	25	28	31	33	36	39	42	48
Lung Damage Grade	30	50	55	30	57	35	60	72	70	75

Required:

(i) Calculate the spearman's coefficient of rank correlation between the number of years of smoking and the extent of lung damage. (8 marks)

(ii) Comment on the value obtained. (2 marks)

(b) At the Express House Delivery Service, providing high-quality service to customers is the top priority of the management. The company guarantees a refund of all charges if a package it is delivering does not arrive at its destination by the specified time. It is known from past data that despite all efforts, 20% of the packages mailed through this company do not arrive at their destinations within the specified time. Suppose a corporation mails ten (10) packages through Express House Delivery Service on a certain day.

Required:

(i) Find the probability that exactly two (2) of these ten (10) packages will not arrive at its destination within the specified time. (2 marks)

(ii) Find the probability that at most two (2) of these ten (10) packages will not arrive at its destination within the specified time. (4 marks)

(iv) Find the probability that at least three (3) of these ten (10) packages will not arrive at its destination within the specified time. (4 marks)

[Total: 20 Marks]

QUESTION SIX

(a) The life of a television (TV) tube, measured in hours of use, is approximately normally distributed with a mean of 6,000 hours and a standard deviation of 1,500 hours. Calculate the probability that;

(i) A TV tube will last between 6,500 and 7,500 hours; (5 marks)

(ii) A tube will last less than the expected life of a tube. (2 marks)

(iii) The TV tube will last less than five (5) years for someone using a TV for 1,700 hours per year. (3 marks)

(b) The following table gives the weekly expenditure of 100 families.

Weekly Expenditure (in K)	**Number of Families**
135 – 140	4
140 – 145	9
145 – 150	18
150 – 155	28
155 – 160	24
160 – 165	10
165 – 170	5
170 – 175	2

Required:

(i) Find the mean (4 marks)

(ii) Find the mode (3 marks)

(iii) Find the median (3 marks)

[Total: 20 Marks]

END OF PAPER

CA 1.2 BUSINESS STATISTICS SUGGESTED SOLUTIONS

SOLUTION ONE

1.1 **B**

1.2 **A**

$$P(A \cap B) = 0.25(0.30) = 0.075$$

1.3 C

$$\overline{X} = \frac{\sum x}{n} = \frac{101\ 000}{6} = 16\ 833.33 \approx 16\ 833$$

1.4 **A**

1.5 $\boldsymbol{\frac{140}{100} \times 180 = 252}$

Correct answer is C

1.6

$$\boldsymbol{P\left(Z < \frac{45 - 34}{10}\right) = P(Z < 1.1) = 1 - 0.1357 = 0.8643}$$

The correct answer is B

1.7 **C**

1.8 B

In 2013, $t = 9$, therefore $\hat{y} = 215.5 + 10.2(9) = 215.5 + 91.8 = 307.3$, which is 307 300.

1.9 $\boldsymbol{CV = \frac{sd}{mean}}$ $\boldsymbol{square\ root\ (variance) = 12}$

$$\boldsymbol{CV = \frac{12}{80} = 0.15}$$

Correct answer is D

1.10 $\frac{x}{60000}(100) = 15 \quad x = 9000$

$y = 60000 - (2000 + 9000 + 9000 + 30000) = 10000$

Correct answer is **D**

SOLUTION TWO

Child	x	y	x^2	y^2	xy
A	112	69	12544	4761	7728
B	113	65	12769	4225	7345
C	110	75	12100	5625	8250
D	113	70	12769	4900	7910
E	112	70	12544	4900	7840
F	114	75	12996	5625	8550
G	109	68	11881	4624	7412
H	113	76	12769	5776	8588
	$\sum x = 896$	$\sum y = 568$	$\sum x^2 = 100,372$	$\sum y^2 = 40,436$	$\sum xy = 63,623$

(a) $\bar{x} = \frac{\sum x}{n} = \frac{896}{8} = 112;\quad \bar{y} = \frac{\sum y}{n} = \frac{568}{8} = 71$

$$SS_{xx} = \sum x^2 - \frac{\left(\sum x\right)^2}{n} = 100,372 - \frac{896^2}{8} = 20$$

$$SS_{yy} = \sum y^2 - \frac{\left(\sum y\right)^2}{n} = 40,436 - \frac{568^2}{8} = 108$$

$$SS_{xy} = \sum xy - \frac{\left(\sum x\right)\left(\sum y\right)}{n} = 63,623 - \frac{(896)(568)}{8} = 7$$

$$r = \frac{SS_{xy}}{\sqrt{SS_{xx}SS_{yy}}} = \frac{7}{\sqrt{20 \times 108}} = 0.15$$

(b) There is 15% strength between verbal reasoning test score and an English test score.

(c) $y = \beta_0 + \beta_1 x$

$$\beta_1 = \frac{SS_{xy}}{SS_{xx}} = \frac{7}{20} = 0.35$$

$$\beta_0 = \bar{y} - \beta_1 \bar{x} = 71 - 0.35(112) = 31.8$$

Therefore, the regression equation is
$y = 31.8 + 0.35x$

(d) When verbal reasoning test score, x, increases by one unit, an English test score, y, increases by 0.35 units.

(e) $y = 31.8 + 0.35x$

$y = 31.8 + 0.35(135)$

$$= 31.8 + 47.25$$
$$= 79.05$$

SOLUTION THREE

	H	U	Total
E	80	20	**100**
B	115	35	**150**
Total	**195**	**55**	**250**

(a) $P(H) = \frac{n(H)}{n(S)} = \frac{195}{250} = 0.78$

(b) $P(E) = \frac{n(E)}{n(S)} = \frac{100}{250} = 0.4$

(c) $P(B) = \frac{n(B)}{n(S)} = \frac{150}{250} = 0.6$

(d) $P(B/H) = \frac{P(B \cap H)}{P(H)} = \frac{n(B \cap H)}{n(S)} \div \frac{n(H)}{n(S)} = \frac{115}{250} \times \frac{250}{195} = 0.59$

(e) $P(U/E) = \frac{P(E \cap U)}{P(E)} = \frac{n(E \cap U)}{n(S)} \div \frac{n(E)}{n(S)} = \frac{20}{250} \times \frac{250}{100} = 0.2$

(f) $P(E \cap H) = \frac{n(E \cap H)}{n(S)} = \frac{80}{250} = 0.32$

(g) $P(B \cup U) = P(B) + P(U) - P(B \cap U)$

$$= \frac{n(B)}{n(S)} + \frac{n(U)}{n(S)} - \frac{n(B \cap U)}{n(S)}$$

$$\frac{150}{250} + \frac{55}{250} - \frac{35}{250} = 0.68$$

(h) $P(E \cap H) = \frac{80}{250}$ $\quad P(E) = \frac{100}{250},$ $\quad P(H) = 195/250$

since $P(E \cap H) \neq P(E)P(H)$

$P(E \cap H) \neq 0 \quad but\ 0.32$

Hence E and H are not mutually exclusive

Events "E" and "H" are dependent but not mutually exclusive.

SOLUTION FOUR

(a)

A quantitative variable is one that is measurable or can be expressed numerically. An example is the score in a test.

A qualitative variable is one that is non – measurable, it is responsive or categorical in nature. An example is the name of provinces in the country.

(b)

(i) Qualitative
(ii) Quantitative
(iii) Qualitative
(iv) Quantitative
(v) Quantitative
(vi) Qualitative

(c)

Year	**Sales**	**7 yearly total**	**7 yearly moving average**
	Y	Y	$Y_c = Y/7$
1993	200	-	-
1994	120	-	-
1995	280	-	-
1996	240	1680	240.00
1997	160	1880	268.57
1998	320	2080	297.14
1999	360	2160	308.57
2000	400	2280	325.71
2001	320	-	-
2002	360	-	-
2003	360	-	-

SOLUTION FIVE

(a) (i)

There are 10 pairs of data, so $n = 10$. Ranking the lowest mark 1 and the highest rank 10 gives the ranks as shown below:

Number of Years Smoked (X)	15	22	25	28	31	33	36	39	42	48	
Lung Damage Grade (Y)	30	50	55	30	57	35	60	72	70	75	
Rank X	1	2	3	4	5	6	7	8	9	10	
Rank Y	1.5	4	5	1.5	6	3	7	9	8	10	
$\lvert d \rvert$	0.5	2	2	2.5	1	3	0	1	1	0	
d^2	0.25	4	4	6.25	1	9	0	1	1	0	$\sum d^2 = 26.5$

$$r_s = 1 - \frac{6\sum d^2}{n(n^2-1)}$$

$$= 1 - \frac{6(26.5)}{10(10^2-1)} = 0.84$$

Spearman's coefficient of correlation is 0.84.

(ii) There is a strong positive correlation between the number of years of smoking and the lung damage.

(b) Let X denote of the number packages that will not arrive at its destination within the specified time.
Therefore, we have that;

$n = 10$, $P(success) = p = 0.2$ ($q = 1 - p = 0.8$), So that $X \sim B(10, 0.2)$.

And we know that: $P(X = x) = \binom{n}{x} p^x q^{n-x} = \binom{n}{x} p^x (1-p)^{n-x}$, $x = 0,1,2,\dots,10$.

(i) $P(X = 2) = \binom{10}{2} (0.2)^2 (1-0.2)^{10-2} = 0.302$

(ii) $P(X \leq 2) = P(X = 0) + P(X = 1) + P(X = 2)$

$P(X = 0) = \binom{10}{0} (0.2)^0 (1-0.2)^{10-0} = 0.1074$

$P(X = 1) = \binom{10}{1}(0.2)^1(1-0.2)^{10-1} = 0.2684$

$P(X = 2) = \binom{10}{2}(0.2)^2(1-0.2)^{10-2} = 0.302$

Therefore;

$P(X \leq 2) = 0.1074 + 0.2684 + 0.302 = 0.6778$

(iii) $P(X \geq 3) = 1 - P(X < 3) = 1 - [P(X = 0) + P(X = 1) + P(X = 2)]$

$P(X \geq 3) = 1 - [0.1074 + 0.2684 + 0.302]$

$= 0.3222$

SOLUTION SIX

(a) We are given $= 6\,000, \sigma = 1\,500$; Let X be the random variable standing for the life of a television (TV) tube.

(i) $P(6\,500 < X < 7\,500)$

$$P(\frac{6\,500 - 6\,000}{1\,500} < Z < \frac{7\,500 - 6\,000}{1\,500})$$

$$P(.33 < Z < 1) = .3418 - .1293 = 0.2125$$

(ii) $P(X < 6\,000) = P(Z < 0) = 0.5$

(iii) Total number of hours will be $5 \times 1\,700 = 8\,500$ hours

$$P(X < 8\,500) = P(Z < \frac{8\,500 - 6\,000}{1\,500}) = P(Z < 1.67)$$
$$= 0.5 + 0.4525 = 0.9525$$

(b)

Weekly Expenditure (in K)	**Number of families** (f)	**Mid – point** x	fx	cf
135 – 140	4	137.5	550	4
140 – 145	9	142.5	1,282.5	13
145 – 150	18	147.5	2,655	31
150 – 155	28	152.5	4,270	59
155 – 160	24	157.5	3,780	83
160 – 165	10	162.5	1,625	93
165 – 170	5	167.5	837.5	98
170 – 175	2	172.5	345	100
	$\sum f = 100$		$\sum fx = 15,345$	

i. $$\bar{x} = \frac{\sum fx}{\sum f} = \frac{15,345}{100} = 153.45$$

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

$$= 150 + \left(\frac{28-18}{2(28)-18-24}\right) \times 5$$
$$= 150 + 3.57$$
$$= 153.57$$

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

$150 + \left(\frac{50-3}{28}\right)5$

=153.39

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA CERTIFICATE IN ACCOUNTANCY

CA 1.3: BUSINESS ECONOMICS

TUESDAY 10 DECEMBER 2024

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

INSTRUCTIONS TO CANDIDATES

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

2. This paper is divided into TWO (2) sections:
   Section A: Ten (10) compulsory multiple choice questions.
   Section B: There are FIVE (5) questions in this section. Attempt QUESTION TWO (2) and any other THREE (3) questions from the remaining FOUR (4) questions.

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

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

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

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

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

8. Present legible and tidy work.

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

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

SECTION A – (COMPULSORY)

Attempt all Ten (10) multiple choice questions.

QUESTION ONE

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

QUESTION ONE

1.1 Which one of the following best describes the money market?

A. A market where organizations raise any form of finance.
B. A market where organizations raise long term finance.
C. A market where organizations raise short term finance.
D. A market for foreign exchange.

(2 marks)

1.2 Which of the following is NOT a factor of production?

A. Money
B. Enterprise
C. Land
D. Capital

(2 marks)

1.3 Economic historian WW Rostow identified ……..stage pattern in the development of industrialized economies.

A. 4
B. 5
C. 3
D. 2

(2 marks)

1.4 …………………………….is the act of the Bank of Zambia lending to the banking system to maintain stability.

A. Open market operations.
B. Discount rate.
C. Required reserves.
D. Lender of last resort.

(2 marks)

1.5 The balance of trade is best described as………………………….

A. The balance of payment on current account.
B. Net visible balance.
C. Net visible and invisible balance.
D. The balance of payment on capital account.

(2 marks)

1.6 An increase in investment capital stock will cause the………………..

A. Aggregate Demand curve to shift to the left.
B. Production Possibility Frontier to shift inward.
C. Phillips curve to shift outward.
D. Long Run Aggregate Supply to shift rightward.

(2 marks)

1.7 Sam, who is 55 years old and has been a steelworker for 30 years, is unemployed because the steel plant in his town closed and moved to Mexico. Sam is experiencing…………….

A. Structural unemployment
B. Cyclical unemployment.
C. Permanent unemployment.
D. Frictional unemployment.

(2 marks)

1.8 The transactions demand for money will be greater the:

A. Lower the level of real income.
B. Higher the price level.
C. Higher the rate of interest.
D. Higher the speculative (asset) demand for money

(2 marks)

1.9 Suppose that autonomous taxes are K100 million and the marginal propensity to save out of disposable income is 0.2, what is the marginal propensity to consume?

A. 0.1
B. 0.2
C. 0.4
D. 0.8

(2 marks)

1.10 The effect of tariffs is different from quotas, in that tariffs will.

A. Increase the price of imported goods
B. Benefit domestic consumers of imported goods
C. Generate additional revenue for the government
D. Hurt domestic producers facing import competition

(2 marks)

[Total: 20 Marks]

SECTION B

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

QUESTION TWO

In economics, the term market structure refers to how different industries are classified and differentiated based on their degree and nature of competition for services and goods. On one extreme end, Perfect competition occurs when there is a large number of small companies competing against each other. They sell identical products (homogeneous), they are price takers, and are free to enter or exit the market. Consumers in this type of market have full knowledge of the goods being sold. On the other hand, in a monopoly market, a single company represents the whole industry. It has no competitor, and it is the sole seller of products in the entire market. This type of market is characterized by factors such as the sole claim to ownership of resources, patent and copyright, licenses issued by the government, or high initial setup costs. All the above characteristics associated with monopoly restrict other companies from entering the market.

Required:

Suppose the school shoes manufacturing industry is a perfectly competitive constant cost industry.

(a) Given that market demand for school bags is described by $Q_d = 10{,}000 - 10P$ and individual firms have the long run cost functions of the Long Run Total Cost (LRTC) = $20{,}000+100q+2q^2$ and the marginal cost (MC) = $100 + 4_q$

- (i) Determine the market price. (4 marks)
- (ii) Calculate how much each firm produces. (2 marks)
- (iii) Determine how many firms are in the industry in the long run? (2 marks)

(b) Explain the relationship between the price and marginal revenue under

- (i) Perfect competition (2 marks)
- (ii) Monopoly (2 marks)

(c) Explain any four (4) arguments against monopoly. (8 marks)

[Total: 20 Marks]

QUESTION THREE

In a competitive market, the forces of demand and supply interact to determine the equilibrium price and quantity of a good or service. On the demand side, consumers' willingness and ability to pay for a product influence the quantity they are willing to purchase at various price levels. Meanwhile, suppliers determine the quantity they are willing to produce and sell at different price points based on their production costs and the potential for profit. At the intersection of the two curves lies the equilibrium point.

Suppose the market demand and supply of maize is given by the following equations:

Market Demand: $P = 100 - Q$

Market Supply: $P = 3Q + 20$

where P is the price per unit and Q is the quantity.

Required:

(a) Calculate the equilibrium price and equilibrium quantity of maize? (4 marks)

(b) Suppose that production costs of maize increase in the market such that at every quantity, the cost of producing maize has now increased by K20. Given the change in production costs of maize described, calculate the new equilibrium price and equilibrium quantity in the market. (4 marks)

(c) Explain what happened to total expenditure in this market given the increase in production costs of maize. (4 marks)

(d) Calculate total expenditure in the market for maize initially and total expenditure in the market after the increase in production costs.

Does your answer support or confirm your answer in (c)? Explain. (4 marks)

(e) Calculate and interpret the value of the price elasticity of demand for maize between these two (2) points of equilibrium using the arc price elasticity of demand formula. (4 marks)

[Total: 20 Marks]

QUESTION FOUR

Sweet Home Furniture, a manufacturing Microenterprise incurs various production costs including raw materials, labor costs, rent for manufacturing facility, utilities and equipment maintenance. In addition, Sweet Home Furniture incurs research and development (R&D) costs for improving their products. Sweet Home Furniture sells its products both online and through retails stores.

The table shows the price (P) and respective quantities(Q) along with total costs (TC) for this manufacturing Microenterprise.

Table 3.1

Quantity(Q)	**Price(P)/Kwacha**	**Total Cost (TC)/Kwacha**
1	2,000	4,000
2	1,900	4,400
3	1,800	5,000
4	1,700	5,800
5	1,600	6,800
6	1,400	8,000
7	1,200	9,400
8	1,000	11,000
9	800	12,800
10	700	15,000

Required:

(a) At each price level, calculate the total Revenue (TR), Marginal Revenue (MR) and Marginal cost (MC). (15 marks)

(b) Determine the profit-maximizing price and quantity for this enterprise. (3 marks)

(c) Determine on the possible maximum profit for this enterprise. (2 marks)

[Total: 20 Marks]

QUESTION FIVE

"Nestled in the heart of southern Africa, Zambia's economic journey has been characterized by periods of both impressive growth and significant setbacks. In the early 2000s, the country rode a wave of high copper prices, achieving middle-income status by 2011. In 2021, Gross Domestic Product (GDP) growth rebounded to 4.6%, driven by rising copper prices and improved agricultural performance. Inflation also dropped from 22.1% in 2021 to 10.1% in 2022. When copper prices plummeted in the late 2010s, Zambia's economy faltered, leading to a fiscal crisis and recession in 2020. High debt levels exceeding 100% of GDP continue to pose a major obstacle to economic stability. Furthermore, structural impediments like inadequate infrastructure hamper further growth." (**World Bank, 2024; African Development Bank, 2024)**

Required:

(a) Giving practical examples, explain the following economic concepts:

(i) Gross Domestic product (GDP) growth. (4 marks)

(ii) Recession. (3 marks)

(iii) Inflation. (3 marks)

(b) Outline any three (3) sources of economic/GDP growth. (6 marks)

(c) Explain any two (2) problems caused by high debt levels. (4 marks)

[Total: 20 Marks]

QUESTION SIX

Globalization is the interdependence and integration of different national economies, it reflects the tendency of markets to become global than national and for it to be different to view any national economy as a stand-alone entity.

Globalization has increased the interdependence of countries with the integration of world economies since the 1980s. In 1980 global export of goods and services was 2 trillion dollars; it increased to approximately 18 trillion dollars in 2020 (UNCTAD, 2022). In addition, the integration of the world is not limited to the economy alone. The process of social and political globalization has also significantly increased. The Social Globalization Index increased from 41 to 64, and the Political Globalization Index increased from 42 to 62 over the period 1980–2019 (Gygli et al., 2019).

Required:

(a) Outline any three (3) impacts of the multinational companies(MNCs) and Foreign Direct Investment(FDI) on national economies. (6 marks)

(b) Outline any three (3) reasons for implementing a policy of controlling the exchange rates.

(6 marks)

(c) Explain any two (2) disadvantages of a single currency? (8 marks)

[Total: 20 Marks]

END OF PAPER

CA 1.3 BUSINESS ECONOMICS SUGGESTED SOLUTIONS

SOLUTION ONE

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

SOLUTION TWO

a)

i) MC = 100 +4q

In the long run, the firm satisfies two conditions:

- Profit maximization → MR = P = LMC
- a firm makes normal profits, п = 0 → P = LAC

Thus at output level of each firm LMC = LAC

Now, LAC is found by dividing e quantity into the LTC

100 + 4q = 20000/q + 100+2q

Price is P* = 500

ii) **Output is q* = 100**

iii) At P = 500, industry output, from the demand curve, is Q = 10,000 – 10(500) = 5,000
The number of firms is thus 5,000/100 = **50**

b) The relationship between price and marginal revenue

- Marginal revenue is the additional revenue from selling one more unit. Under perfect competition, MR = price because the firm is a price taker. It sells each additional unit at the same price as the previous one, so the additional revenue (MR) is the same as the price.
- Under monopoly, the MR is less than the price because the monopolist must reduce the price in order to sell an additional unit of output. Therefore, the additional revenue will be less than the previous one.

c) Arguments against monopoly

- At the profit maximizing level of output, prices are likely to be higher while output is less than in a more competitive firm.
- The supernormal profits, which monopolies make, are naturally at the expense of customers.
- Monopolies are not allocatively efficient. At the profit maximizing level, the costs are not at their lowest level since the marginal cost is not equal to the average cost.
- Monopolies are not threatened by competition, they tend to adopt a complacent Attitude known as 'x' inefficiency, and they may not be inclined to be innovative.
- There may be diseconomies of large-scale production due to the size of the Monopoly firm. The firm might become difficult to coordinate and control. Communication also becomes difficult, the morale of workers is low, etc.

SOLUTION THREE

a. In equilibrium, $Q_q = Q_s$

100 – Q = 3Q + 20

4Q = 80

Qe = 20

Pe = 100 – 20 = K80 per unit

b. When the cost of producing maize increases by K20, the new supply function will be P = 40 + 3

In equilibrium, $Q_q = Q_s$

3Q = 40 = 100 – Q

4Q = 60

Qe' = 15

Pe' = 100 – 15 = K85 per unit

c. Total expenditure should change depending on the nature of elasticity of demand. If demand is price elastic, total expenditure will reduce. However, if demand is price inelastic, total expenditure will increase

d. Total expenditure initially = (K80 per unit)(20 units) = K1,600

Total expenditure after change in production costs = (K85 per unit) (15 units) = K1,275. Yes, provided in (c) you predicted that total expenditure would fall.

e. Price Elasticity of Demand = │{[(Q2 – Q1)/(Q2 + Q1)]/[(P2 – P1)/(P2 + P1)]}│

Price Elasticity of Demand = {[(15 – 20)/35]/[(85 – 80)/165]} = [(1/7)/(5/165)] ≈ 4.7

This implies that a 1% increase in the price of the commodity will lead to a 4.7% decrease in the quantity demanded of the product, ceteris paribus.

SOLUTION FOUR

Quantity(Q)	Price(P)/Kwacha	Total Cost (TC)/Kwacha	Total Revenue (TR)	Marginal cost (MC)	Marginal Revenue(MR)
1	2000	4000	2000	4000	2000
2	1900	4400	3800	400	1800
3	1800	5000	5400	600	1600
4	1700	5800	6800	800	1400
5	1600	6800	8000	1000	1200
6	1400	8000	8400	1200	400
7	1200	9400	8400	1400	0
8	1000	11000	8000	1600	-400
9	800	12800	7200	1800	-800
10	700	15000	7000	2200	-200

(b). Given that the condition for profit-maximizing is $MR=MC$, from the above computations, there is no condition or level where MR and MC are equal. Thus, we cannot determine with certainty the profit maximizing price and quantity

(c). The possible maximum profit occurs at quantity level 5: TR-TC= K8000-K6800 =K1200

SOLUTION FIVE

(a). (i). GDP is the total value of all goods and services produced within a country's borders in a year. For instance, over the past year, Zambia's agricultural sector produced 10% more maize compared to the previous year. This increased production contributes to Zambia's overall GDP growth. Higher GDP growth often translates to improved living standards, job creation, and increased government revenue for public services

(ii). Recession

A recession occurs when economic growth shrinks for two consecutive quarters, signifying a contraction in GDP. For instance, Zambia experiences a decline in copper production due to a global slowdown. This decrease in a major export could lead to a decline in overall economic activity, potentially pushing the country into recession. Recessions can cause job losses, reduced business activity, and a decline in living standards

(iii) Inflation

Inflation refers to the sustained increase in the prices of goods and services over time.

For instance, over the past year (2023), the price of necessities increased. This general price rise signifies inflation. Inflation can erode purchasing power, making it harder for people to afford essential goods and services. This can disproportionately impact low-income individuals and families.

(b). Sources of GDP/Economic growth

Economic growth, measured by GDP increase, can be achieved through various means.

Natural Resources:

The important resources here are arable land, oil and gas, forests, water, and mineral resources. More land and raw materials should lead to an outward shift of PPF and thus an increase in potential growth. However, the quantity of natural factors such as land and raw materials like metals and oil could be small and even absent in some countries, and the quantity cannot be easily increased. Fortunately, a country can still enjoy economic growth with modest natural resources provided it can obtain them efficiently from abroad, i.e. through trade.

Human Resources:

Labour inputs consist of quantities of workers and of the skills of the workforce. The bigger the population, the larger the labour force and further out is the PPF. However, the quantity of labour alone is not enough to guarantee economic growth. Human capital can be improved through formal education for children, vocational training, retraining, life-long adult education programmes, better nutrition that improves mental concentration, better sanitation that reduces illness and thus absenteeism from school and improved basic healthcare that reduces preventable diseases.

Physical Capital Physical capitals include factories, machinery, shops, malls, offices and motor vehicles. Cetera Paribus, a higher savings rate can help to finance more physical capital investment. This productive investment would help move the PPF outward, thus economic growth. The quality of physical capital can be improved by Research and Development, access to foreign technology and know-how, and improved vocational training.

Technological change

Technological change denotes changes in the processes of production or the introduction of new products or services. Process inventions that have greatly increased productivity were the steam engine, the generation of electricity, the internal combustion engine, the wide-body jet, the

photocopier machine, and the fax machine. Fundamental product inventions include the telephone, the radio, the aeroplane, the phonograph, the television and so on.
(c).

Problems caused by High Debt Levels in Zambia:
(i). **Reduced Fiscal Space**
- A significant portion of government revenue gets diverted towards debt servicing, leaving less for crucial areas like healthcare, education, infrastructure, and social protection. This hinders investments in key sectors essential for long-term growth and development. Reduced spending on social programs can exacerbate poverty and inequality, creating social unrest and instability.

(ii). **Crowding-Out Effect**
- High debt levels make it more expensive for the government to borrow domestically, leading to higher interest rates. This discourages private sector investment and borrowing, hindering economic growth and job creation. Crowding out private investment can stifle innovation and entrepreneurship, further limiting economic diversification and sustainability.

(iii). **Vulnerability to External Shocks**:
- Zambia's high dependence on external borrowings exposes it to fluctuations in global financial markets and interest rates. Any sudden changes can increase debt servicing costs and make it harder to manage debt levels. External shocks like commodity price declines or economic slowdowns in major trading partners can significantly impact Zambia's ability to repay its debts, potentially triggering a debt crisis.

(iv) **Deterioration of Public Services**
- The need to prioritize debt servicing over essential public services can lead to their decline, impacting the quality of education, healthcare, and infrastructure. This negatively affects human capital development, living standards, and overall well-being.
- Deteriorating public services can further hinder economic growth and development, creating a vicious cycle.

(v). **Macroeconomic Instability**
- High debt levels can contribute to inflation, currency depreciation, and volatile exchange rates, creating uncertainty and discouraging investment. This can lead to capital flight and further economic instability.
- Macroeconomic instability can erode investor confidence and make it harder for Zambia to attract new investments and financing, hindering its economic recovery.

(vi). **Reputational Damage**:
- High debt levels and subsequent debt restructuring efforts can damage Zambia's creditworthiness and reputation in the international financial community. This can make it more expensive to borrow in the future and limit access to international financing.
- Damaged reputation can also deter foreign investment and hinder economic growth opportunities.

SOLUTION SIX

a) Impacts of multinational companies(MNCs) and foreign direct investments(FDI) on national economies:
- Improve economic welfare by introducing new capital
- Introduce new technology
- MNCs will provide direct employment and may also create additional indirect employment through suppliers
- Local producers establish direct linkages with MNCs and suppling to them, improve productivity of local producers
- Balance of payment gains from inflows of FDI
- Government can get tax revenue from MNC profits

b) Reasons for a policy controlling the exchange rates
- To rectify a balance of trade deficit by trying to bring about a fall in the exchange rate
- To prevent a balance of trade surplus, from getting too large, by trying to bring about a limited rise in the exchange rate.
- To emulate economic conditions in other countries
- To stabilize he exchange rate of its currency. Exporters and importers will then face less risks of exchange rates movements wiping out their profits. A stable currency increases confidence in the currency and promotes international trade.

c) Disadvantages of a single currency
- One single currency fits all currency may not be applicable to countries with very different industrial structure and at very difficult levels of economic maturity
- There is a loss of national self-determination in monetary matters
- Agreement and coordination between the different countries using the currency may be difficult to achieve.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA CERTIFICATE IN ACCOUNTANCY

CA 1.4: COMMERCIAL AND CORPORATE LAW

FRIDAY 13 DECEMBER 2024

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 Law can be defined as:

A. Rules based on criminal laws.

B. A theory to keep wrongdoers in prison.

C. Rules which regulate the conduct of people.

D. Restrictions which leaders create in times of emergency.

(2 marks)

1.2 A company once registered becomes a separate legal entity. In which case was this principles established?

A. Macaura v Northern Assurance Limited.

B. Salomon v Salomon.

C. Rayfield v Hands.

D. Carlill v Carbolic Smoke Ball & Co.

(2 marks)

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

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

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

C. Morality can be ignored whilst the law cannot.

D. Law has to be interpreted by the courts, whilst morality is based on known Norms.

(2 marks)

1.4 Which of the following sentences best describes the differences between the law of contract and the law of tort.

A. Law of tort deals with purely economic issues, while law of contract deals with commercial transactions.
B. Law of tort does not compensate for any financial loss while law of contract does.
C. Both Law of Contract and tort can compensate for financial loss, but Law of Tort can only compensate for financial loss linked to some form of harm, loss or injury suffered.
D. Law of contract compensates for bodily injury while law of tort only deals. with purely financial losses.

(2 marks)

1.5 Civil and criminal law have different characteristics, which are:

A. Civil law is concerned with acts committed between legal people while criminal law is concerned with wrongful acts committed against the state.
B. Civil law includes divorce, property rights, contractual obligations, whilst criminal law includes incest, murder, gender-based violence and theft.
C. Remedies for civil law include restitution and damages but criminal law remedies are imprisonment, and rehabilitation.
D. All of the above.

(2 marks)

1.6 The five (5) major sources of law include Acts of Parliament and judicial decisions, among others. In terms of judicial decisions what does the doctrine of '*stare decisis*' mean?

A. A combination of binding and persuasive precedent.
B. Judges making good decisions.
C. Using previous decisions to decide present cases.
D. Standing by a previous decision.

(2 marks)

1.7 Which of the following statements is correct?

A. Dissolution of a company is the same as lifting of the veil of incorporation.
B. Dissolution of a company means bringing the life of a company to an end, while lifting of the veil of incorporation is a temporary suspension of the company's business.
C. Dissolution of a company and lifting of the veil of incorporation both bring. the life of a company to an end.
D. Lifting the veil of incorporation brings the life of a company to an end

while dissolution does not.

(2 marks)

1.8 Statutes can be interpreted in a variety of ways in particular, the **golden rule**.

A. States that if the literal rule produces an absurdity, then the court should look for another meaning of the words to avoid that absurd result.
B. Sims at finding out the mischief and defect in a statute and to implement a remedy for the same.
C. Explain what the law is rather than explaining what the law means.
D. Makes a decision as to what they felt Parliament meant to achieve.

(2 marks)

1.9 An organisation running a business has the following attributes: the assets belong to the organisation, it can create a floating charge over its assets, change in membership does not alter its existence, and members cannot transfer their interests to others. What type of organisation is it?

A. A private limited company.
B. A limited liability partnership.
C. A general partnership.
D. A public limited company.

(2 marks)

1.10 A partnership may be defined as……………….

A. A business run by three people.
B. A business owned and run by two or more people with the view of making a profit.
C. A business owned and run by one person.
D. A company run by two or more people.

(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) questions.

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

Real Juicy Mwenda is a renowned musician whose music is enjoyed by the old folks throughout the country. Yesterday, he saw an advert in The News Diggers Newspaper about guitars/Banjo going at a reduced price of K2,000 from the usual price of K6,000. He decides that he will take advantage of the promotion and buy the equipment. Owing to his busy schedule, he sends his employee Malama to go and buy a guitar from the Music Lovers' Warehouse in Lusaka within two hours as the stocks were very limited.

On his way to the warehouse, Malama decided to go through FNB Industrial Branch and delays to reach the Music Lovers' Warehouse. Real Juicy Mwenda contacts Malama to find out as to whether he has bought the guitar to which he replies that he was still on the way and he went on to say, 'please go there, I will give you a K700 as appreciation." Upon arrival at the Music Lovers' Warehouse, Malama found that the guitars were going for K2,200, not as advertised. He, however, went ahead and bought the guitar paying the difference using his personal money.

Real Juicy Mwenda has refused to pay the K700 promised to Malama and agreed to only pay K200 of Malama's money used to purchase the guitar and is also not happy with the seller.

Required:

(a) From the case study above, identify statements or parts that relate to:

- (i) Invitation to treat (1 mark)
- (ii) Communication of acceptance (1 mark)
- (iii) Consideration must not be in the past (1 mark)
- (iv) Fraudulent Misrepresentation (1 mark)

(b) In relation to part (i) above, explain the following with the aid of decided cases:

- (i) Invitation to treat (4 marks)

(ii) Communication of acceptance (4 marks)
(iii) Consideration must not be in the past (4 marks)

(iv) Fraudulent Misrepresentation (4 marks)

[Total 20 Marks]

QUESTION THREE

You woke up this morning and gazed upon the front page of the latest edition of News Diggers read as follows:

"Some miners who had grievances against their employers went on strike during the course of which they rioted in their township and set fire to a bread van belonging to the appellant, an innocent passerby. The question arose whether the employers could be vicariously liable, or if they were strictly liable, or in breach of duty of care owed to an innocent passerby. It was also argued that novel basis for liability should be introduced to enable the appellant to recover from the respondent as employers of the riotous miners."

Required:

(a) Discuss the vicarious liability of employers. (10 marks)

(b) Discuss the distinction between unfair dismissal and summary dismissal? (10 marks)

[Total: 20 Marks]

QUESTION FOUR

(a) Describe causation and remoteness of damage in the law of tort. (8 marks)

(b) Under a contract of Sale of Goods, the parties are deemed to be in a mutual understanding with duties and remedies for any problem that may come.

List the four (4) remedies available to the buyer. (4 marks)

(c) Discuss any four (4) advantages of delegated legislation. (8 marks)

[Total: 20 Marks]

QUESTION FIVE

Nsipo Sopo Ltd is a company registered under the Companies Act No.10 of 2017 and having its registered office at Ndola. The company manufactures and distributes various kinds of cosmetics through its agents dotted across the country.

In Luwingu, it operates through an agent named Mr. Chongo who has been its agent for the past four (4) years. Mr. Chongo operates from Plot 102, Petauke which is being leased from a minor and paid for by Mr. Chongo's principal Nsipo Sopo Ltd. The company has paid rentals for the next six (6) months in advance.

It has come to the attention of the company that for the past two months, Mr. Chongo has been concocting and selling his own product called 'Kashika' which is a mixture of Nsipo Sopo Ltd's products and local herbs for lightening the skin. Customers with sensitive skin have reacted to this 'Kashika' product and the story of such reactions has gone so viral that it has drastically reduced Nsipo Sopo Ltd's sales to the record low.

In order to salvage the situation, shareholders had a meeting last week and resolved among other things that the company be wound up and a liquidator to be appointed by creditors. It was further resolved that, Mr. Chongo be sued for loss of business among other claims. The shareholders believe that when hearing this case against Mr. Chongo, the court will interpret the law of agency using the golden rule of interpretation.

Required:

The company's Chief Executive Officer has approached you seeking an explanation on the following issues arising from the above case:

(a) Explain to him the type of meeting shareholders held. (4 marks)

(b) Advise him on the powers of a liquidator that creditors will appoint? (4 marks)

(c) Can the landlord to Plot 102, Petauke above, avoid the Tenant Contract between him and Mr. Chongo? (4 marks)

(d) Advise him how he can terminate Mr. Chongo's agency relationship? (4 marks)

(e) Explain what shareholders mean using the Golden Rule of interpretation. (4 marks)

[Total: 20 Marks]

QUESTION SIX

As Chuma Musonda was driving back home from work, he received a text message from his wife informing him that his son was unwell and he acted swiftly and decided to text back in order to ascertain the urgency of the situation, all of this whilst he was driving on the high way. Unfortunately, Chuma hit into another car. He has since been charged with dangerous driving by the Officers from the Road Transport & Safety Agency who first arrived on the scene. The owner of the Landcruiser he had hit has also sued him for negligence in the High Court for Zambia.

Required:

(a) Explain to Chuma the elements of negligence required to be established for the plaintiff to succeed. (10 marks)

(b) Explain the following terms:

- (i) Partner by estoppel and General Partner (4 marks)
- (ii) Directors' duty against conflict of interest (2 marks)
- (iii) Nominal Capital and issued Capital (4 marks)

[Total: 20 Marks]

END OF PAPER

CA1.4 COMMERCIAL AND CORPORATE LAW SUGGESTED SOLUTIONS

SOLUTION ONE

1. C
2. B
3. A
4. C
5. D
6. D
7. B
8. A
9. D
10. B

SOLUTION TWO

(i) The statements or parts relating each of the below terms are as follows:

(a) *Invitation to treat* - the advert in The News Diggers Newspaper about musical instruments.

(b) *Communication of acceptance* - paying the new price of K2, 200 instead of the advertised K2, 000.

(c) *Consideration must not be in the past* - the promise the promise of K700 whilst Malama was already on the way is past consideration.

(d) *Fraudulent misrepresentation* - the advertised price of K2, 000 when in fact the price of the guitar was K2, 200 amounted to fraudulent misrepresentation.

(ii) The above in (ii) are explained as follows:

(a) **Invitation to treat** – This is the holding out by one person that he is ready to receive offers, which he may then either accept or reject. For example, the advert in The News Diggers Newspaper about musical instruments was an invitation to the public to make offers to buy the musical instruments. Cases in support of invitation to treat include the following: *Carlill v. Carbolic Smoke Ball Co. Ltd (1893); Partridge v. Crittenden (1968); Bell v. Fisher (1960) and Pharmacitical Society of Great Bitain v. Boots Cash Chemist Ltd (1952)*

(b) **Communication of acceptance** – Acceptance is any positive act by a person to whom an offer has been made which brings the agreement into force. It must be unconditional i.e. the offer must be accepted as it is.

In the case at hand, by paying the new price of K2, 200 instead of the advertised K2, 200, Malama and Real Juicy Mwenda accepted the offer for the sale of the guitar at a price which was higher than the one in the advert. Acceptance must be communicated *Powell v. Lee (1908)***.** The payment was the communication of acceptance.

(c) **Consideration must not be in the past** - This means that consideration must not be done after the act has already been done. Past consideration is no consideration at all – *ReMcArdle (1951)*. In this case, the promise the promise of K700 whilst Malama was already on the way is past consideration because whether it was promised or not, he was still going to buy (he was already on the way/he had already started off).

He started his journey without the expectation of the K700 in his mind, thus cannot claim it.

(d) **Fraudulent Misrepresentation** – This is the making of a statement by a person who knows that his statement is false or has no belief in its truth or he is reckless, careless, whether it is true or false *Derry v. Peek (1889).*

In the case at hand, the advertised price of K2, 200 when in fact the price of the guitar was K2, 200 amounted to fraudulent misrepresentation meant to invite people to the warehouse and then tell them the actual price to which they would be forced to pay as they would have already travelled long distances to the warehouse.

SOLUTION THREE

a. An employee is under an implied duty to indemnify the employer against all damages caused as a result of wilful conduct or negligence. The employee is under duty to indemnify not only were there is direct damage but also were an employer becomes vicariously liable for the acts of the employees. Employers may be liable for acts of harassment committed by employees in the course of their employment. The test to determine whether an act was done 'in the course of employment' is not that used in the law of tort. In *Jones* v. *Tower Boot Co. Ltd* (1997), the Court of Appeal held that the statutory test was distinct from the common law one, i.e. the words 'in the course of employment'. This concept has been stretched to include acts of sexual harassment taking place outside working hours and away from the employer's premises in a social setting (drinks after work)

b. The concept of wrongful dismissal is essentially is a dismissal which is contrary to the contract and its roots lie in the common law. The remedy is usually limited to payment for the notice period…In contrast, unfair dismissal is dismissal contrary to statute….unfair dismissal is, therefore, usually a much more substantial right for the employee and the consequences for the employer of dismissing unfairly are usually much more serious than those which attend a wrongful dismissal." Whereas Unfair dismissal is the term used to describe an employer's action when terminating an employee's employment contrary to the requirements of the Employment Law. In particular, a termination by the employer in breach of the employee's contract of employment (in other words a dismissal without notice, where the employer is obliged to give notice) is described as "wrongful dismissal", and not as unfair dismissal.

Where an employee has grounds to believe that he or she has been discriminated against in being dismissed, other laws may be relevant. Where the employee resigns or terminates his contract (without notice) due to some action on the part of the employer which would entitle the employee to terminate without notice (whether or not the employee actually gives notice), this is known as constructive dismissal. The normal circumstances in which an employee would be so entitled are in cases of a "fundamental breach of contract" (also known as a "repudiatory breach of contract") by the employer.

SOLUTION FOUR

(a) Causation is a principle found in the **law of torts and criminal law**. Causation is may be defined as the **link between the wrongful act or omission of the tortfeasor or accused and the injury suffered by the victim.** Causation is one of the most important elements that must be established by the plaintiff or prosecution if they are to succeed in an action in negligence or criminal act. **Where causation is not established, it may be held that the defendant's or accused actions or omissions may not have been the cause of injury suffered by the victim** in which case the defendant or accused would be acquitted or liability would be reduced to only the injury that would be connected to the wrongful action or omission of the defendant or accused.

On the other hand, the principle of remoteness of damage is **equally found in tort of negligence as one of the essential ingredients** to be established if a claim is to succeed. Remoteness of damage **looks at the extent of blame on the part of the defendant for his wrongful act.** Remoteness and causation go hand in hand so that, where the courts hold that there was no causal connection between the wrongful act and the injury suffered, **the court may then hold the basis of the claim to be too remote a ground on which an action would be brought before the court.**

(b) (i)The buyer's remedies are:

- **Reject the goods**
- **Rescission for innocent misrepresentation**
- **Damages; and**
- **Specific performance.**

(c) (a) The use of delegated legislation has the following advantages:

(i) Time-saving. Delegated legislation can be introduced quickly where necessary in particular cases and permits rules to be changed in response to emergencies or unforeseen problems. The use of delegated legislation also saves Parliamentary time generally. It is generally considered better for Parliament to spend its time in a thorough consideration of the principles of enabling legislation, leaving the appropriate minister, or body, to establish the working detail under their authority.

(ii) Access to particular expertise. Given the highly specialized and extremely technical nature of many of the regulations that are introduced through delegated legislation, the majority of Members of Parliament simply do not have sufficient expertise to consider such provisions effectively. It is necessary therefore, that those authorized to introduce delegated legislation should have access to the external expertise required to make appropriate regulations. In regard to bye-laws, local knowledge should give rise to more appropriate rules than general Acts of Parliament.

(iii) Flexibility. The use of delegated legislation permits ministers to respond on an *ad hoc* basis to particular problems as and when they arise.

(iv) It is also faster as compared to the primary law making process.

SOLUTION FIVE

(a) *Extra Ordinary Meeting* - The meeting shareholders held is an extra-ordinary Meeting which is called upon to discuss an emergency that has befallen the company which cannot wait for the next annual general meeting. The matter is urgent and cannot wait. The resolution will be as binding as that of a general meeting

(b) *Powers of a liquidator* – The liquidator will have the following powers:

(i) To carry on the business of the company as far as it is necessary for the beneficial winding up of the company,

(ii) To wind up the affairs of the company and pay off all the creditors in full according to the class ranking of creditors as provided by the company.

(iii) To distribute the remainder of the company's assets to the shareholders.

(iv) To investigate and receipt if it appears that there has been a fraud committed, or suppression or concealment of material facts by the officers of the company.

(c) *Golden Rule of Interpretation* – This is a form of legal interpretation aimed at producing the most reasonable result, even though this involves departing from the prima facie meaning of the words. This is done so as to avoid absurdity – *Re Re Sigsworth (1935).*

(d) *Voidable Contracts of Minors* - The lease agreement is voidable as contracts with minors are voidable any time before they reach the age of majority. Thus the landlord, who is a minor in this context can avoid this contract. Thus the minor would be relieved of all his future liabilities in the contract

(e) *Termination of Mr. Chongo's agency relationship with the company* – The relationship can ended in any of the following ways:

- Mutual consent between the principal and the agent
- Either party unilaterally giving notice to the other
- Lapse of time for which they agreed to have the partnership
- By operation of law, i.e if the partnership becomes illegal, death of one of the parties, insanity, bankruptcy, etc.
- Breach of the relationship by one of the parties, for example, Mr. Simwinga's behaviour breached the relationship.

SOLUTION SIX

For Chuma to be successful in a claim for negligence, the following must be established:

1) The defendant owed him a duty of care
2) The defendant was in breach of this duty
3) The plaintiff suffered injury or loss as a result of that breach

(i) Duty of care

It is important to know in what circumstances one person will owe a duty of care to another. In the Donoghue v Stevenson case, Lord Atkin formulated a general test for determining the existence of a duty of care which could be applied to most situations. His statement of general principle which was to become to be known as the neighbour principle is as follows:

> *"You must take reasonable care to avoid acts or omissions which you can reasonably foresee would be likely to injure your neighbour. Who then in law is my neighbour? The answers seems to be persons who are so closely and directly affected by my act that I ought reasonably to have them in contemplation as being so affected when I am directing my mind to the acts or omissions which are called in question."*

Lord Atkin's statement of the requirements for duty of care to exist involved two main elements: reasonable foresight and proximity. A duty of care would be imposed if the damage was reasonably foreseeable and the relationship between the parties was sufficiently close (proximate). The flexible nature of the neighbour principle enabled the courts to recognise the existence of a duty of care in a variety of situations provided it was fair, just and reasonable to do so, unless there were public policy reasons for excluding it.

(ii) Breach of duty

After establishing the existence of a duty of care, the plaintiff must show that this duty has been broken by the defendant. The test for deciding whether there has been a breach of duty is whether the defendant has failed to do what a reasonable person would have done or has done what a reasonable person would not have done. Whether the defendant's conduct amounts to a breach of duty depends on all the circumstances of the case.

It is normally the responsibility of the plaintiff to show that the defendant did not act reasonably, that is the burden of proof lies with the plaintiff. If the plaintiff is unable to present appropriate evidence, his case will fail.

(iii) Damage

It is necessary for the plaintiff to show that he has suffered some damage since negligence is not actionable per se. This damage must be as a result of a breach of the duty that was fixed by law. The plaintiff must show the damage is not too remote a consequence of the defendant's breach of duty.

(b)

(i) Partner by estoppel – This is a partnership by holding out (conduct). Thus if a person allows a partnership or others to hold themselves as if they are in partnership with him, they will be stopped (stopped) from denying that they are in partnership with him. The persons held out to be partners must be aware of that fact and have let things like that will doing anything to stop the holding out. Thus a creditor or any third party can sue them for breach of contract as part of the partnership whilst a General Partner is an ordinary partner with the rights to management of the partnership and all the other duties or roles arising from the partnership unless restricted by the partnership deed. He is a partner proper.

(ii) Duty not to have conflict of interest – A director must always act for the best interest of the company. Personal interest must not take precedence. In Regal (Hastings) Ltd v. Gulliver (1942) it was held that directors must account for any secret profit they must have made whilst standing in a fiduciary relationship.

(d) Nominal Capital – This is the authorized or registered capital of a company. It is the maximum amount of capital a company is allowed to raise by its articles of association. Whilst Issued Capital is part of nominal capital that has been issued or distributed or allotted to members. The members will have to pay for the shares issued to them only.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA CERTIFICATE IN ACCOUNTANCY

CA 1.5: MANAGEMENT THEORY AND PRACTICE

MONDAY 9 DECEMBER 2024

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

INSTRUCTIONS TO CANDIDATES

1. You have fifteen (15) minutes reading time. Use it to study the examination paper carefully so that you understand what to do in each question.
2. This paper is divided into TWO (2) sections:

   Section A: Ten (10) compulsory multiple choice questions.

   Section B: There are FIVE (5) questions in this section. Attempt QUESTION TWO (2) and any other THREE (3) questions from the remaining FOUR (4) questions.
3. Enter your student number and your National Registration Card number on the front of the answer booklet. Your name must **NOT** appear anywhere on your answer booklet.
4. Do **NOT** write in pencil (except for graphs and diagrams).
5. **Cell Phones** are **NOT** allowed in the Examination Room.
6. The marks shown against the requirement(s) for each question should be taken as an indication of the expected length and depth of the answer.
7. All workings must be done in the answer booklet.
8. Present legible and tidy work.
9. Graph paper (if required) is provided at the end of the answer booklet.

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

SECTION A

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

<u>QUESTION ONE</u>

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

1.1 An organization running a business has the following attributes: the assets belong to the organization, it can create a floating charge over its assets, change in membership does not alter its existence, and members cannot transfer their interests to others. What type of organization is this?

A. A general partnership.

B. Private limited company.

C. A limited liability partnership.

D. A public limited company.

(2 marks)

1.2 Symbols in organizations can include one of the following:

A. Job title.
B. Private health insurance.
C. Salary.
D. All of the above.

(2 marks)

1.3 Which of the following statements is false regarding stakeholders?

A. Stakeholders may have a positive or negative interest in the success of the project.
B. All stakeholders should be identified before the project execution begins.
C. Stakeholders may not be affected by the outcome but may perceive that they could be affected by the outcome.
D. Stakeholders may be people or organizations.

(2 marks)

1.4 Put the following leadership styles in order, with the most democratic style first and the least democratic style last

I. Tells and talks
II. Consults
III. Tells and sells
IV. Delegates

V. Involves

A. I, III, V, III, IV
B. III,II,I,V,IV
C. III,I,II,IV,V
D. III,I,II,V,IV

(2 marks)

1.5 Everyone has three needs according to David McClelland (1917-1998) needs-based on motivational model **EXCEPT** which one?

A. A need for achievement ('n-ach').

B. A need for authority ('n-pow').

C. A need for affiliation ('n-affil').

D. A need for satisfaction ('n-sat').

(2 marks)

1.6 Which of the following is an issue considered in developing corporate strategies.

A. What business(es) are we in?

B. Which direction are we going?

C. What resources do we have to implement our strategies?

D. All the above.

(2 marks)

1.7 The underlying principles of Combined Code of corporate Governance and Conduct are:

i. Acceptability

ii. Openness

iii Integrity

iv Accountability and Responsibility

A. i only
B. i and iii
C. ii and iv
D. iv (2 marks)

1.8 A written statement of policies and principles that guides the behavior of all employees is called.

A. Code of ethics.

B. Word of ethics.

C. Ethical dilemma.

D. Work standards.

(2 marks)

1.9 Contingency theories of leadership are based on.

A. That there is no single style of leadership appropriate to all situation.
B. That there is a single style of leadership appropriate to all managers.
C. That there is a single style of leadership appropriate to all situations.
D. None of the above.

(2 marks)

1.10 Which of the following statements regarding internal forces of motivation is true?

A. They are more important to understand than external forces of motivation.
B. They are less important to understand than external forces of motivation.
C. They are important as external forces of motivation.
D. They are seldom recognized by managers.

(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

(a) Partnerships facilitate the blending of skills and knowledge to the advantages that benefits all the participants. List six (6) features of a partnership form of business ownership. (6 marks)

(b) Some individuals find it very difficult to start up a business due to challenges they deem to be beyond their capacity to do so. Explain any five (5) benefits of joining a cooperative.

(10 marks)

(c) Explain the two (2) features under the Companies Act of Zambia that distinguish limited companies from other organizations. (4 marks)

[Total: 20 Marks]

QUESTION THREE

(a) Define the term stakeholder. (3 marks)

(b) Explain an interest for each that of management and employees protect in an organization. (4 marks)

(c) Team or group work in organizations is an important aspect though an individual is also expected to remain committed to their individual contracts.

Required:

Describe the three (3) group attributes that a work group possesses which are not found in a random crowd. (3 marks)

(d) Describe five (5) effects of social and cultural environment of the country in an organization. (10 marks)

[Total: 20 Marks]

QUESTION FOUR

Batoka Limited Company has been in existence for the past 20 years. The company has since expanded with many branches in all provinces in Zambia. It produces furniture both for households and offices for different organizations.

However, the company is now facing stiff competition, both from local and foreign producers including South Africa and China. Management at Batoka limited Company is very much worried about the changing business environment, which is negatively affecting its operations. As a result, Senior Management decided to put strategies to address the situation. Following strategic decisions that were made, there were a number of changes from human capital, through to operational activities that took place in the company. There is also great resistance to change among staff, unfortunately the change is inevitable.

Required:

(a) State two (2) main types of changes that occurs in an organization. (2 marks)

(b) Management at Batoka limited company might have used SWOT analysis to implement certain changes. What do the abbreviation SWOT stand for? (4 marks)

(c) Explain the three (3) levels of strategy that Batoka Limited company should have considered in order to improve the situation. (6 marks)

(d) Explain any four (4) ways Senior Management at Batoka Limited Company would deal with resistance to change by staff, in response to the challenges of the business environment. (8 marks)

[Total 20 Marks]

QUESTION FIVE

Mr. Mwamba an upcoming young accountant was first employed as an intern at MJK Limited Company. Six (6) months later he was given a full time job as a management trainee. In one of the orientation activities, all management trainees were requested to attend a workshop on managerial skills. The facilitator brought to their attention issues of bureaucracy in organizations and team work in order to achieve the smooth operations and organizational goals effectively.

Required:

(a) Explain any five (5) reasons why bureaucracy is criticized in some organizations. (10 marks)

(b) Outline any five (5) characteristics of an effective team, the trainee managers would exhibit in their daily business operations. (10 marks)

[Total: 20 Marks]

QUESTION SIX

The organization that you work for has a formal system for personal development which is usually prepared for each individual staff. This is helpful in order to link the development needs of an individual to the needs of the organization. Staff are encouraged to set development targets and opportunities including formal training. You have been asked to investigate the availability and suitability of various training options that staff would explore taking into consideration that individuals have a need for esteem and recognition that supervisors should identify.

Required:

(a) Outline any five (5) characteristics of a career development program that would be appreciated by both the employee and employer in your organization. (10 marks)

(b) Explain any five (5) purposes of a personal career development plan. (10 marks)

[Total: 20 Marks]

END OF PAPER

CA 1.5 MANAGEMENT THEORY AND PRACTICE SUGGESTED SOLUTIONS

SOLUTION ONE

1	2	3	4	5	6	7	8	9	10
C	D	B	B	D	D	C	A	A	C

SOLUTION TWO

a) The following are the features of partnership:

i. They may be less or 20 partners or more for professionals
ii. It is common among professionals
iii. All partners manage and control with the assistance of whoever they employ
iv. Initial capital is contributed by each partner
v. All partners are involved in running the business
vi. By law they have a partnership agreement though each one of them is liable to pay the debt from their personal assets

b) The following are the benefits of joining a cooperative:

i. Members develop their businesses by sharing efforts, activities and assets for economic and social benefits of themselves and their families.
ii. By members acting together, they are able to produce sufficient quantities of goods that can compete on the market.
iii. They normally produce goods for the local community and if they are successful will earn members trust from community.
iv. They are democratic organizations and cannot be dominated by wealthy individuals.
v. They have continued to contribute to the economic and social development of the country especially in agriculture.

c) The following features under company act of Zambia distinguish limited companies from other organizations:

i. They have legal separate personality and can enter into legal agreements with someone in its name and has legal rights and obligations.
ii. They have limited liability. Shareholders cannot be sued for unpaid debts for the company.

SOLUTION THREE

a) Stakeholders are individuals or groups of people that have interests in or are affected by goals activities operations of an organization.

b)

i. Management interests should be the continuation and growth because it provides a job and income for them.
ii. Employees interests are for personal interests ang goals which can be satisfied by an organization, such as status and job satisfaction.

c) The following are the three (3) group attributes possessed by teams or work groups that are not found in random groups:

i. A sense of identity- they acknowledge boundaries to the group
ii. Loyalty to the group-loyalty to the group mean conformity or acceptance of norms of behavior and attitude that bind the group together and exclude others from it
iii. Purpose and leadership-they express purpose, choose leaders to lead them towards the fulfilment of the goals.

d) The following are the effect of the social and cultural environment of a country effect on the organization:

i. -Attitudes and values of customers employees and the general public.
ii. -Attitude of the work and the long work hours
iii. -Attitude to leisure and what people like to do.
iv. -Influence of religious and religious beliefs and social behaviors
v. -Tribal influences
vi. -Age distribution
vii. -Levels of education
viii. -Gender issues and equality
ix. -Impact of HIV AIDS COVID

SOLUTION FOUR

(a) Types of main changes in organizations: planned and unplanned change and incremental and transformational change.

(b) SWOT – Strength, Weaknesses, Opportunities and Treats

(c) Levels of strategy in an organization

i. **Corporate strategy** is concerned with the overall scoop and purpose of the organization and how each business unit can be profitable. This means that all business units should contribute to the achievement of corporate objectives. The interests and expectations of the shareholders should be prioritized. The decision about sourcing of resources and allocation should also be made at corporate strategy level.

ii. **Business strategy** which involves making decisions about how to compete in the organization's markets. Therefore, decisions concerning product development and the target customers are crucial for this type of strategy level.

iii. **Operational or functional strategy** is concerned with how the different business units deliver effectively the corporate and business level strategy in terms of resources, processes and employees.

(d) Managing change involves:

i. Getting some staff lobby for new changes by convincing resistant to change staff to accept that the old ways of doing things are no longer the best options in a changing environment. (challenging the prevailing organizational wisdom)

ii. Manipulation and co-option - Transforming ownership to a working team where by when there is a coalition, a change leader can encourage others to implement the change. Invite staff to join the change management team. Responsibility can also be delegated to a team to implement changes.

iii. Education and communication - Communicating a compelling aspiration where change leaders must have this conviction that change is enviable and must be communicated effectively especially where the resistant to change is caused by a lot of misunderstanding. Management should deal with the problem of educating and informing people.

iv. Management may negotiate an agreement especially when staff who are resisting are in the position of power and resist successful. A deal can be made between management and staff which may involve a good retirement package.

v. Facilitation and support - Change managers must make everyone a hereby recognizing, rewarding and celebrating the achievements of everyone who contributes to the change process. Sometimes offering cancelling and training services and in some cases by offering some time off work.

vi. Participation and involvement. Employees must all be involved in the change process. Participation and involvement of staff may lower resistance levels as staff may later become familiar with new changes in the organization. Eventually they can accept the change

SOLUTION FIVE

(a) Reasons why bureaucracy is criticized

i. The existence on rules and procedures brain washes staff as they may lack initiative because they work under instructions.

ii. Management within a bureaucracy may have too much concern for positions and status. They may be too ridged 'fail to be flexible in their approach to management

iii. Managers may hide behind bureaucracy from responsibilities by following the rules claim that they follow just follow procedures when something goes wrong.

iv. It is easy to lose focus on the purpose for which rules were made because there is too much emphasis on conformity with the same rules.

v. It can lead to stereotyped behavior and a lack of responsiveness to individual incidents or problems due to impersonal work relations among staff.

vi. It takes time to make and implement decisions as a result may work progress can be affected.

(b) Characteristics of an effective team include:

i. It may have a significance autonomy which may influence over performance with the view that extra effort can be rewarded.

ii. Members are usually cooperative all the time.

iii. The team usually knows its purpose. Members have clear roles, set themselves workable targets and measures performance against set objectives.

iv. Most members usually exercise levels of maturity and stability.

v. Everyone participates, complements each other's efforts for a common purpose. (Members are interdependent on each other.)

SOLUTION SIX

(a) The characteristics of a career development programme

i. It should be realistic and believable because not everyone can be a manager or be at managerial level.
ii. It must be very clear and transparent especially to each staff, including what path the career will take, the duration of the career and how they are expected to develop the career with their organization.
iii. Employees should see opportunities that they want to take as a form of motivation. Therefore, it must be acceptable to all staff in the organization.
iv. Management should support all employees in planning their personal development and career development.
v. There should be feedback to employees

(b) The purposes of personal development include:

i. Take responsibility for individual's own learning and development needs.
ii. Define individual's needs for further training and development in consultation with supervisors.
iii. Understand personal weaknesses and work on how to improve on them
iv. Provide evidence of individual strength so that individuals can discuss their achievements with their supervisors,
v. The plan should have a record and evidence of achievements, training courses attended and career development.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA CERTIFICATE IN ACCOUNTANCY

CA 1.6: BUSINESS COMMUNICATION

WEDNESDAY 11 DECEMBER 2024

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

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

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

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

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

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

8. Present legible and tidy work.

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

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

SECTION A – (Compulsory)

Attempt all ten (10) multiple choice questions

QUESTION ONE

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

1.1 Which type of data processing involves the collection and aggregation of data over a specific time period to generate reports or insights for decision-making purposes?

A. Online Transaction Processing (OLTP).
B. Batch Processing.
C. Real-time Processing.
D. Stream Processing.

(2 mark)

1.2 In MS-Excel, when does **#Name?** occur in a cell?

A. When the # sign is typed instead of equals to (=) sign in the formula.
B. When a formula contains a number that is divided by zero.
C. When the formula contains numbers and text.
D. When you have entered and incorrect formula name.

(2 marks)

1.3 …. is a key IT control in managing software changes to ensure the integrity and security of business systems?

A. Version Control
B. System Backup
C. User Authentication
D. Network Firewall

(2 marks)

1.4 Which of the following statements is incorrect?

A. A help function is often a feature of a user-friendly program.
B. A mouse-driven program can use both keyboard and mouse as input devices.
C. Function keys on a keyboard enable the user to enter instructions quickly to the computer, in order to carry out defined operations with an application program.

D. Pull-down menus are normally used with programs that do not need a mouse for input.

(2 marks)

1.5 Which feature of Microsoft Windows allows users to organize files and folders into a hierarchical structure for easier access and management?

A. File Taskbar.
B. File Explorer.
C. File Control Panel.
D. Desktop Background.

(2 marks)

1.6 State the appropriate complementary close that is associated with the Salutation 'Dear Dr. Muleya'.

A. Yours Faithfully.
B. Yours sincerely.
C. Yours truly.
D. Yours Best Regards.

(2 marks)

1.7 What is the purpose of the first paragraph of a memorandum?

A. Gives full detail of what the memo is about.
B. Provides a background or reason for the information contained in the memo.
C. To provide the actual message.
D. To indicate who sent the memo and to whom.

(2 marks)

1.8 What is horizontal communication?

A. It is communication from senior managers to junior staff.
B. It is formal communication.
C. Communication among senior managers only.
D. Communication form junior staff to senior managers.

(2 marks)

1.9 Which of the following best describes the role of a facilitator in a meeting?

A. To write minutes.
B. To guide the discussion.
C. To facilitate the meeting.
D. To network with participants.

(2 marks)

1.10 Detailed information such as questionnaires, raw data or interview transcripts found at the end of a report is known as __________________________.

A. References.

B. Appendices.

C. Conclusion.

D. Acknowledgement.

(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)

Mr. Jere, the supervisor in the accounts department has a very serious shortage of staff during one of the business peak times. This is a serious problem that requires management's intervention through the office of the Human Resources. One of the company policies is that before new staff is employed, the recruitment committee should hold discussions on the appointments of staff. The Committee's last meeting was held five (5) months ago where minutes were also recorded. Mr. Jere, your supervisor decided to call for another meeting and you were requested to be a secretary for this specific meeting.

Required:

(a) Using a memorandum layout, prepare a notice for a meeting. The notice should also include a standard agenda with three (3) items under fresh business. (14 marks)

(b) Explain three (3) types of minutes that can be used in organizations. (6 marks)

[Total: 20 Marks]

QUESTION THREE

(a) State five (5) key IT general controls particularly controls over networks that financial lending businesses like Bayport Zambia should implement to ensure the security and resilience of its network infrastructure. (10 marks)

(b) Describe five (5) basic skills involved in operating email within an organization such as Zambia Breweries, emphasizing their importance in facilitating communication and collaboration amongst its employees. (10 marks)

[Total: 20 Marks]

QUESTION FOUR

(a) Accounting Information Systems (AIS) store and provide valuable business information. Therefore, reliability of AIS is very important.

Explain four (4) basic principles important to AIS reliability. (8 marks)

(b) Microsoft Windows is one of the most popular operating systems that organizations use on their computers as well as networks.

(i) Describe three (3) features of Windows operating systems. (6 marks)

(ii) Apart from Microsoft windows, mention three (3) operating systems an organization could use on the computers. (3 marks)

(iii) State three (3) tasks that an operating system performs. (3 marks)

[Total: 20 Marks]

QUESTION FIVE

You are the Assistant Accountant at TEO's Eggs Limited. The company recently hired five (5) Sales Representatives who have been on probation for three (3) months. Only two (2) Sales Representatives with the highest sales of eggs will be confirmed. The table below shows the sales each Sales Representative made.

Name	**January**	**February**	**March**
John	77	82	95
Sarah	54	63	88
Joseph	75	78	92
Oliver	40	45	50
Peter	70	90	85

Required:

(a) Calculate the average sales for each Sales Representative. (5 marks)

(b) Draw a bar chart showing the Sales Reps' names and average sales. (5 marks)

(c) Which two (2) Sales Representatives will be given permanent positions in the company? (2 marks)

(d) Outline any four (4) limitations of using charts and graphs. (8 marks)

[Total: 20 Marks]

QUESTION SIX

Mukambo and Company is seeking goods and services offered by your organization. Two (2) weeks ago, they wrote a letter to your organization requesting for an order specifying goods and services which they wish to source from your company. The contents of the letter also included the date of delivery of the products and other useful details

Required:

(a) Explain the following parts of a business letter,

(i) Middle paragraph (2 marks)

(ii) Complimentary close (2 marks)

(b) Write a letter of acknowledgement to Mukambo and Company concerning the order that they made at your organization. (16 marks)

[Total: 20 Marks]

END OF PAPER

CA1.6 BUSINESS COMMUNICATION SUGGESTED SOLUTIONS PAPER

SOLUTION ONE

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

SOLUTION TWO

(a) JM GROUP OF COMPANIES
Memorandum

To: all committee members

From: The Secretary Recruitment Committee

Date: any date during examination time

Subject: Notice for a meeting

This serves to inform you that there will be a meeting on Thursday (date during exam time) in the conference room at 9:00 hours.

The agenda includes:

1.0 Opening remarks
2.0 Minutes of the last meeting
3.0 Matters arising
4.0 Training needs
4.1 Recruitment of new staff
4.2 Staff transports.
5.0 Any other business.
6.0 Closing remarks

You are all encouraged to attend the meeting.

Sender's signature

(b) The types of minutes include:

- Resolution – minutes that simply indicate the decisions reached upon during the meeting.
- Action minutes – Minutes that indicate the assigned tasks, deadline and responsible offices carrying out particular tasks assigned to them during a meeting.
- A narrative minute – minutes that describes the debate, presented in narrative form and usually includes names of members who suggested on advised on something in the minutes narrations.
- Verbatim – these record word for word statements. They are common in the court of low and parliament.
- Report summaries – These record summaries of any news worth information presented during seminars and conferences.

SOLUTION THREE

(a) Any five (5) key IT general controls particularly controls over networks that should implement to ensure the security and resilience of its network infrastructure.

- **Network Segmentation**: Implement network segmentation to divide Bayport Zambia's network infrastructure into separate segments or zones based on security requirements and data sensitivity. Utilize firewalls, routers, and VLANs to enforce access controls and restrict lateral movement of threats within the network.

- **Perimeter Security**: Strengthen perimeter security measures to protect Bayport Zambia's network from external threats and unauthorized access. Deploy firewalls, intrusion prevention systems (IPS), and web application firewalls (WAF) to monitor and filter inbound and outbound network traffic, detect malicious activities, and prevent unauthorized access to network resources.

- **Network Access Controls**: Implement robust network access controls to authenticate and authorize users, devices, and applications accessing Bayport Zambia's network. Utilize technologies such as IEEE 802.1X authentication, network access control (NAC), and VPNs to enforce security policies and control network access based on user identity and device posture.

- **Wireless Security**: Secure wireless networks used by Bayport Zambia to ensure the confidentiality and integrity of data transmitted over Wi-Fi connections. Implement strong encryption protocols such as WPA2 or WPA3, disable insecure protocols and services, and enforce authentication mechanisms to prevent unauthorized access to wireless networks.

- **Network Monitoring and Logging**: Implement comprehensive network monitoring and logging mechanisms to track network traffic, detect suspicious activities, and investigate security incidents promptly. Utilize logging, auditing trails, and intrusion detection systems to monitor network traffic, identify anomalies, and detect potential security breaches.

- **Patch Management**: Establish a robust patch management process to regularly update and patch network devices, operating systems, and software applications to address known security vulnerabilities. Implement automated patch deployment tools and procedures to ensure timely patching and minimize the risk of exploitation by attackers.

- **Intrusion Detection and Prevention**: Deploy intrusion detection and prevention systems (IDPS) to monitor network traffic for signs of malicious activity and prevent unauthorized access or attacks in real-time. Utilize signature-based detection, anomaly detection, and heuristic analysis to identify and block suspicious network traffic and behaviors.

- **Network Resilience**: Implement redundancy and failover mechanisms to ensure the resilience and availability of Bayport Zambia's network infrastructure. Utilize redundant network links, load balancers, and high-availability configurations to minimize single points of failure and maintain continuous network connectivity and service availability.

- **Incident Response**: Develop and maintain an incident response plan outlining procedures for detecting, analyzing, and responding to network security incidents. Establish a dedicated incident response team trained to handle network security incidents effectively, mitigate their impact, and restore normal operations as quickly as possible.

  - **Regular Security Audits and Assessments**: Conduct regular security audits, vulnerability assessments, and penetration tests to identify weaknesses and vulnerabilities in Bayport Zambia's network infrastructure. Utilize external security experts and independent auditors to evaluate the effectiveness of network controls and recommend improvements to enhance security posture.

(b) Any five (5) basic skills involved in operating email within an organization emphasizing their importance in facilitating communication and collaboration amongst its employees.

- **Email Composition**: Employees should be proficient in composing clear, concise, and professional emails tailored to the intended audience and purpose. This includes structuring emails logically, using appropriate greetings and sign-offs, and proofreading messages for accuracy and clarity before sending.

- **Email Management**: Employees should be able to manage their email inbox efficiently by organizing emails into folders, applying filters and labels, and prioritizing messages based on urgency and importance. Effective email management helps employees stay organized, reduce clutter, and focus on critical tasks.

- **Attachment Handling**: Employees should know how to attach files, documents, and other resources to emails securely. This involves selecting the appropriate file format, compressing large files if necessary, and verifying the attachment before sending to ensure completeness and accuracy.

- **Email Etiquette**: Employees should adhere to email etiquette guidelines to maintain professionalism and courtesy in their communications. This includes using appropriate language and tone, refraining from using all caps or excessive punctuation, and responding promptly to emails within a reasonable timeframe.

- **Security Awareness**: Employees should be aware of email security best practices to mitigate the risk of phishing attacks, malware, and unauthorized access. This includes avoiding clicking on suspicious links or attachments, verifying the authenticity of sender addresses, and reporting any suspicious activity to the IT security team.

- **Collaborative Features**: Employees should be familiar with collaborative features available in email platforms, such as calendar integration, shared folders, and group mailing lists. These features facilitate coordination, scheduling, and information sharing among team members, enhancing productivity and collaboration.

- **Mobile Access**: Employees should be able to access and manage their email accounts effectively using mobile devices such as smartphones and tablets. This includes configuring email settings, syncing contacts and calendars, and adhering to security protocols to protect sensitive information when accessing email on the go.

- **Compliance with Policies**: Employees should adhere to company policies and guidelines governing email usage, confidentiality, and data protection. This includes refraining from sharing sensitive information via email unless encrypted, avoiding the use of personal email for work-related communications, and following established procedures for email archiving and retention.

SOLUTION FOUR

(a) Four (4) basic principles important to AIS reliability.

- **Security** – Access to the system and its data is controlled and limited only to those authorized
- **Confidentiality** – The protection of sensitive information from unauthorized disclosure
- **Privacy** – The collection, use and disclosure of personal information about customers is done in an appropriate manner
- **Processing integrity** – The accurate, complete and timely processing of data done with proper authorization
- **Availability** – The system is available to meet operational and constructional obligations

(b) i. Discuss three (3) features of Windows operating systems.

- **Multitasking** is available and allows more than one program to be active at one time
- **Graphical user Interface** – windows has a user friendly GUI that is often operated using a mouse. A GUI has WIMP (Windows, Icons, Mouse and Pull-down menus) features
- **Taskbar** which includes the start button and buttons providing quick access to currently open applications

ii. Three (3) operating systems an organization could use on the computers.

- MacOS
- Android
- Linux
- Unix
- Ubuntu

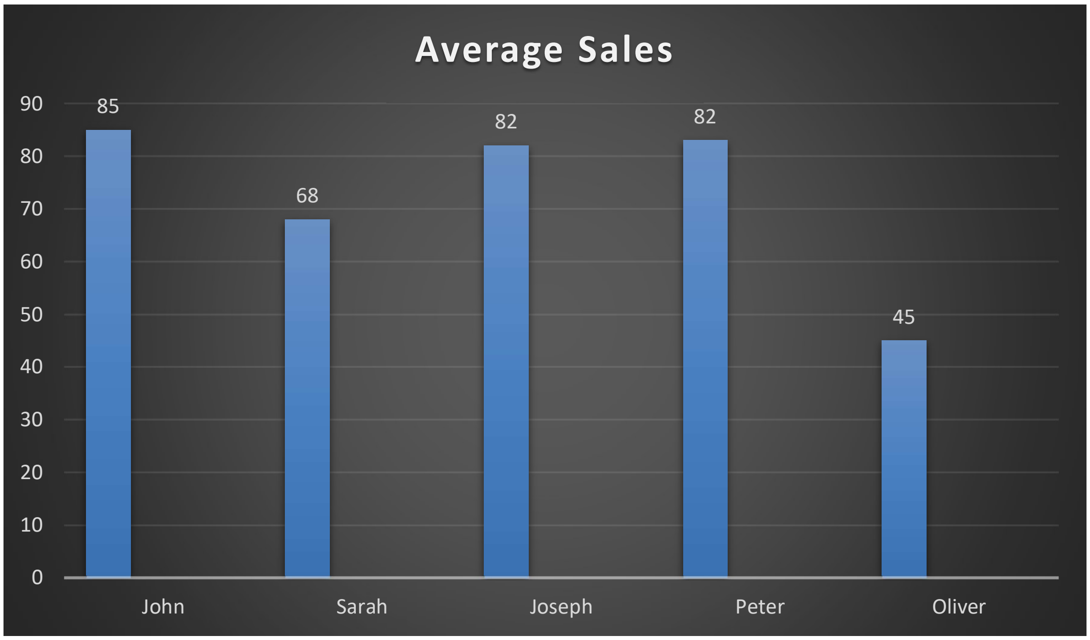
iii. Three (3) tasks that an operating system performs.

- File management
- Process management
- Storage management
- Controlling of input and output devices

SOLUTION FIVE

a) John 77 + 82 + 95 = 254 ÷ 3 = 85%
   Sarah 54 + 63 + 88 = 205 ÷ 3 = 68%
   Joseph 75 + 78 + 92 = 245 ÷ 3 = 82%
   Peter 70+ 90 + 85 = 245 ÷ 3 = 82%
   Oliver 40 + 45 + 50 = 135 ÷ 3 = 45%

b)



c) John and Peter or Joseph

d) –They often require additional explanations
   - They fail to expose key assumptions, causes, impacts and patterns
   - They can easily be manipulated to give false impressions
   - They are expensive, requires more skill to create.
   They may be clear if they contain a lot of data.

SOLUTION SIX

(a)

(i) Middle paragraph – this forms the main body of a letter. It provides clear details of the message that the sender needs to communicate to the intended target audience.

(ii) Complimentary close courteously closes the message. It serves as a fair well phrase compliment to the salutation address of the recipient. For example, Dear sir in a letter would be courteously closed as yours faithfully.

(b) Mukamba & company limited
Po box 30567

KITWE

Our REF: MUK /1147/01

Your REF: ______________

(Date : any date during examination time)

JTM Enterprise

Po, box 37255

KITWE

Dear sir/ Madam

Subject: **Order on Requested Goods and Services**

This serves to confirm that your order has been received by us on (date) and is currently under process. With this letter, we are attaching the invoice of your order which also include other details

The delivery of the product to another town usually takes one to two weeks. However, since we are in the same town, the expected date of delivery is (date).

We will keep updating you the status of the transition of the order and if there is any unexpected delay.

We thank you for a continued business relationship with us. We hope you will be satisfied with our products and services after receiving them. Please let us know your views or any other observations to serve you in a better way by contacting us as soon as possible.

Your continued health business relationship with us is highly appreciated,

Yours faithfully,

Sender's signature

Sender's name and position

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA APPLICATION ADVANCED DIPLOMA IN ACCOUNTANCY

CA 2.1: FINANCIAL REPORTING

MONDAY 9 DECEMBER 2024

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

INSTRUCTIONS TO CANDIDATES

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

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

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

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

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

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

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

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

8. Present legible and tidy work.

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

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

SECTION A

This question is compulsory and must be attempted.

QUESTION ONE

You are the Group Accountant of Luapula Group. Below are the summarised draft financial statements of Luapula Plc and its subsidiary Mansa Limited.

Statements of Profit or Loss for the year ended 31 December 2024

	Luapula plc	**Mansa Ltd**
	K'000	**K'000**
Revenue	285,000	140,000
Cost of Sales	(266,000)	(132,000)
Gross Profit	19,000	8,000
Other income	3,000	2,400
Distribution Cost	(2,000)	(2,000)
Administrative Expenses	(6,000)	(3,200)
Finance Cost	(300)	(400)
Profit Before Tax	13,700	4,800
Income Tax Expense	(5,000)	(1,800)
Profit for the Year	**8,700**	**3,000**

Statements of Financial Position as at 31 December 2024

	Luapula Ltd	**Mansa Ltd**
	K'000	**K'000**
Assets		
Non-Current Assets		
Property, Plant and Equipment	240,000	110,000
Investments	600	2,600
Current Assets	16,000	6,600
Total Assets	**256,600**	**119,200**
Equity and Liabilities		
Ordinary shares K1	10,000	4,000
Share premium	300	-
Retained Earnings	35,100	6,500
	45,400	10,500
Non-Current Liabilities		
10% Loan Notes	203,000	104,000
Current Liabilities	8,200	4,700
Total Equity and Liabilities	**256,600**	**119,200**

The following information is relevant:

1. On 30 September 2024, Luapula Ltd acquired 20% equity of Kawambwa Ltd, for cash consideration amounting to K0.4 million which was settled immediately. The holding in Kawambwa Ltd gives Luapula Ltd significant influence over Kawambwa's financial and operating policies. Kawambwa Ltd made a profit of K10 million during the year to 31 December 2024.
2. On 1 July 2024, Luapula Ltd acquired 2.4 million of the 4 million ordinary shares of Mansa Ltd in a share- for- share exchange of two (2) shares in Luapula Ltd for three

shares in Mansa Ltd. The issue of shares had not yet been recorded by Luapula Ltd. At the date of acquisition, shares in Luapula Ltd had a market value of K6 each.

3. On acquisition, the fair values of Mansa Ltd's assets were equal to their carrying amounts with the exception of an item of plant, which had a fair value of K2 million in excess of its carrying amount. It had a remaining life of five (5) years at that date. Mansa Ltd has not adjusted the carrying amount of its plant as a result of the fair value exercise.

4. Luapula Ltd's policy of accounting for any non-controlling interest is at fair value. The fair value of the non-controlling interest in Mansa Ltd at the date of acquisition was estimated to be K5.9 million. No consolidated goodwill was impaired at 31 December 2024.

5. In the post-acquisition period, sales from Mansa Ltd to Luapula Ltd were K10 million. Mansa Ltd made a markup on cost of 40% on these sales. Luapula Ltd had sold K7.2 million (at cost) as at 31 December 2024.

6. Other than where indicated, profit or loss items are deemed to accrue evenly over the reporting period.

7. Mansa Ltd's trade receivables at 31 December 2024 include K600,000 due from Luapula Ltd which did not agree with Luapula Ltd's corresponding trade payable. This was due to cash in transit of K200,000 from Luapula Ltd to Mansa Ltd. Both companies had positive bank balances.

Required:

(a) Prepare the consolidated statement of profit or loss for Luapula Group for the year ended 31 December 2024. (16 marks)

(b) Prepare the consolidated statement of financial position for Luapula Group as at 31 December 2024. (20 marks)

(c) Describe four (4) circumstances in which a parent entity may not be required to present consolidated financial statements as required by IFRS 10 Consolidated Financial Statements. (4 marks)

[Total: 40 Marks]

SECTION B

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

QUESTION TWO

Handie Limited (Handie) manufactures specialist furnishings for supply to building contractors. Over the years, the company has established itself as a preferred sub-contractor with many construction companies in respect of its products.

As Chief Accountant for Handie Limited, you have been asked to prepare draft accounts for inclusion in Handie's annual report for the year to 31 December 2024 based on the following Trial Balance:

	K'000	K'000
Revenue		80,524
Cost of Sales	42,100	
Distribution Costs	8,500	
Administrative Expenses	30,450	
Property at Valuation	42,000	
Plant and Equipment at Cost	84,000	
Accumulated Depreciation:		
Plant and Equipment		40,992
Inventory at 1.1.2024	23,400	
Trade Receivables	8,500	
Trade Payables		5,500
Bank	12,200	
Construction Contract Costs	8,300	
Progress Billings Received		5,600
Loan Note Interest Paid	2,000	
10% Loan Notes		20,000
Share Capital (K1 Shares)		50,000
Share Premium		28,500
Retained Earnings at 1.1.2024		25,934
Revaluation Reserves		1,000
Deferred Tax		8,700
Current Tax	5,300	
	266,750	266,750

Further information:

1. During the year to 31 December 2024, Handie was awarded a contract to construct and fit furnishings at a total contract price of K22 million. The construction contract costs of K8.3 million in the trial balance above are amounts incurred on the contract to date. The directors of Handie have estimated that further costs to complete the contract will amount to K7.3 million. Progress billings (amounts invoiced) to the customer to date amounted to K9.7 million of which K5.6 million had been received. Handie determines the percentage completion of construction contracts based on costs incurred to date as a proportion of estimated total costs.

2. Handie measures its property using the IAS 16 revaluation model. The property which was acquired on 1 January 2015 at a cost of K50 million, has an estimated total life of 50 years with a nil residual value. The property was last revalued on 31 December 2023. It is yet to be revalued at 31 December 2024 to a fair value of K38.5 million. Handie has a policy to transfer realised amounts in respect of the revaluation reserve to retained earnings.

Plant and equipment is depreciated at 20% per annum on a reducing balance basis.

Depreciation charge for the year to 31 December 2024 is yet to be accounted for. Depreciation charge on all non-current assets is to be treated as cost of sales.

3. On 1 January 2024, Handie issued K20 million, 10% loan notes at par (amount included in trial balance). Issue costs paid amounted to K0.6 million and are presented within administrative expenses in the above trial balance. The loan notes are redeemable at par on 31 December 2026 and have an original effective interest rate of 11.23%.

4. On 1 April 2024, Handie issued five (5) million K1 equity shares at a premium of 75%. Further, a bonus of 1 for every nine (9) existing shares was issued on 1 October 2024 which was financed from the share premium reserve.

5. The balance on the current tax account in the above trial balance is the under or over provision for the current tax liability for the year to 31 December 2023. The provision for the current tax for the year to 31 December 2024 has been estimated at K7.2 million. Handie estimates a net taxable temporary difference on its net assets at 31 December 2024 of K31 million. The company is liable to income tax on its taxable profits at 30%.

Required:

(a) Prepare Handie's Statement of Profit or Loss and Other Comprehensive Income for the year ended 31 December 2024. (9 marks)

(b) Prepare Handie's Statement of Changes in Equity for the year ended 31 December 2024. (4 marks)

(c) Prepare Handie's Statement of Financial Position as at 31 December 2024. (7 marks)

[Total 20 Marks]

QUESTION THREE

(a) New-Kass Enterprises has just been incorporated after trading for ten (10) years as a solar panel distributor. Majority of the members of the board of directors for the company are non-accountants. The Financial Director mentioned to them that the financial statements would have to be filed at the Patents and Companies Registration Agency (PACRA) in order to comply with the rules that apply to listed companies. She mentioned also that preparation of financial statements is guided by the International Accounting Standards Board (IASB)'s Conceptual Framework for Preparation of Financial Statements, and that copies of the Framework are available for review in order to understand the contents of the financial statements.

Required:

(i) Briefly discuss the purpose of the IASB Conceptual Framework for the Preparation of Financial Statements (3 marks)

(ii) Explain what is meant by recognition and measurement of elements of financial statements. (4 marks)

(b) New-Kass bought a piece of capital equipment at a cost of K200,000 on 1 January 2021. It had an estimated useful economic life of ten (10) years and a residual value of K12,000. The policy of New-Kass is to depreciate plant and equipment on a straight line basis. The tax authorities do not treat depreciation as a deductible expense. Instead they grant tax relief based on an allowance of 30% on the cost of the asset in the year in which the asset is acquired followed thereafter by an annual deductible allowance of 15% calculated on a reducing balance basis. The company is subject to an applicable rate of income tax of 20% which has not changed for the period under review.

Required:

(i) Explain the purpose of accounting for deferred tax in accordance with provisions of IAS12 *Current Tax*. (3 marks)

(ii) Compute the amounts of deferred tax liabilities at 31 December 2021 to 2023. (8 marks)

(iii) Show the amount that would be reported in the statement of profit or loss in respect of deferred tax for the year ended 31 December 2023. (2 marks)

[Total: 20 Marks]

QUESTION FOUR

(a) A financial instrument is any contract that gives a financial asset to one party (an entity) and a financial liability or equity instrument to the other entity. Twalumba issued a K25,000, 6% loan on 1 January 2024 at par. Issue costs were K1,000. Interest is paid annually on 31 December each year. The loan will be redeemed on 31 December 2027 at a premium which gives an effective interest on the loan of 8%.

Required:

(i) Discuss the initial recognition, measurement and classification of financial assets in accordance with IFRS 9 Financial instruments. (4 marks)

(ii) Calculate the charge to profit or loss for the year ended 31 December 2024 and the carrying amount to report in the statement of financial position as at 31 December 2024 in respect of the loan. (4 marks)

(b) IAS 41 Agriculture, provides guidance on accounting for agricultural activities. Biological assets, agricultural produce at the point of harvest and government grants related to biological assets are within the scope of IAS 41.

Required:

Explain how the accounting treatment applied to bearer plants differs from that applied to other biological assets. (4 marks)

(c) The accounting treatment of foreign currency transactions is prescribed by IAS 21 *Effects of changes in foreign exchange rates*. This standard addresses some key issues and the practicalities of accounting for transactions in foreign currency.

Required:

(i) Distinguish between Functional currency and Presentation currency. (2 marks)

(ii) Discuss how foreign currency transactions are translated into the presentation currency of an entity before they are recorded in the accounts. (2 marks)

(d) The objective of IAS 10 'Events after the reporting period' is to prescribe when an entity should adjust its financial statements for events after the reporting period; and the disclosures that an entity should give about the date when the financial statements were authorised for issue and about events after the reporting period.

Required:

(i) Distinguish between adjusting and non-adjusting events. (2 marks)

(ii) State the accounting treatment for an adjusting event and non-adjusting event. (2 marks)

[Total: 20 Marks]

QUESTION FIVE

The Manyuzu Plc Group of companies has embarked on a strategy to grow through acquiring an additional subsidiary. It has identified two (2) target companies from the same industry and of a similar size, Kazi Limited (Kazi) and Dwole Limited (Dwole), to choose from.

As a Financial Analyst, you have been asked to undertake a comparative financial analysis of the two (2) target companies and recommend which one of the two (2) companies should be acquired. Your analysis must cover the following areas: Profitability (including profit margins and asset turnover), Liquidity and Working Capital Management, and Gearing.

The following are extracts from recent annual reports of the two (2) companies for the same period:

Statements of profit or loss and other comprehensive income for the year ended 31 December 2023:

	Kazi	**Dwole**
	K'000	K'000
Revenue	370,000	296,000
Cost of Sales	(191,000)	(162,350)
Gross Profit	179,000	133,650
Distribution Costs	(70,000)	(52,500)
Administrative Expenses	(77,000)	(75,000)

Finance Costs	(13,750)	(4,125)
Profit Before Tax	18,250	2,025
Income Tax Expense	(7,400)	(740)
Profit for the Year	10,850	1,285
OCI		
Revaluation of Property	(3,904)	4,000
OCI for the Year	(3,904)	4,000
Total CI for the Year	6,946	5,285

Statements of financial position as at 31 December 2023:

	Kazi	**Dwole**
Assets	K'000	K'000
Non-current		
Property, Plant and Equipment	316,000	290,500
Development costs	30,000	33,600
	346,000	324,100
Current		
Inventory	46,800	48,200
Trade Receivables	99020	84,440
Bank	30,600	-
	176,420	132,640
Total Assets	522,420	456,740
Equity and Liabilities		
Share Capital (K1 Shares)	200,000	160,000
Reserves:		
Share Premium	114,000	119,000
Retained Earning	8,000	86,200
Revaluation Reserve	-	4,000
Total Equity	322,000	369,200
Non-current liabilities		
Deferred Tax	37,200	34,800
10% Loan Notes	124,820	18,940
	162,020	53,740
Current Liabilities		
Bank Overdraft	-	1000
Trade Payables	24,000	15200
Current Tax	14,400	17,600
	38,400	33,800
Total Equity and Liabilities	522,420	456,740

Required:

Write a report to the directors of Manyuzu Plc analysing the comparative financial performance and position of Kazi and Dwole, and recommend which one of the two (2) companies should be considered for acquisition. **[Total: 20 Marks]**

END OF PAPER

SUGGESTED SOLUTIONS

SOLUTION ONE

LUAPULA GROUP
CONSOLIDATED STATEMENT OF PROFIT OR LOSS FOR THE YEAR EXDED 31 December 2024

	K'000
Revenue (285,000 + (140,000 X 6/12) – 10,000 (W6))	345,000
Cost of sales (or W6) (266,000 + (132,000 x 6/12) – 10,000 intra-grp sales + 200(W2) + 800(W2))	(323,000)
Gross profit	22,000
Other income (3000 + (2400 x 6/12)	4,200
Distribution costs (2,000 + (2,000 X 6/12))	(3,000)
Administrative expenses (6,000 + (3,200 X 6/12))	(7,600)
Share of profit from associate (10, 000 x 3/12 x 20%)	500
Finance costs (300 + (400 X 6/12))	(500)
Profit before tax	15,600
Income tax expense (5,000 + (1,800 X 6/12)	(5,900)
Profit for the year	9,700
Profit attributable to: Owners of the parent	9,500
Non-controlling interests (W5)	200
	9,700

(b)
LUAPULA GROUP
CONSOLIDATED STATEMENT OF FINANCIAL POSITION AT 31 December 2024

	K'000
Non-current assets	
Property, plant and equip. (240,000+110,000+ 2,000 FV adj. -200 Dep)	1,800
Investments (600 - 400+2,600)	2,800
Investment in Associate (400 +500)	900
Goodwill (W3)	4,500
	360,000
Current assets (16,000+6,600-800 pup-600 Rec +200 CIT, (W8))	21,400
Total assets	**381,400**
Equity and Liabilities	
Equity attributable to parent Share capital (10,000 +1,600 share ex.)	11,600
Share premium (300 +(9, 600-1600))	8,300
Retained earnings (W4)	35,900
	55,800
Non-controlling interests (W5)	6,100
	61,900
Non-current liabilities 10% loan notes (203,000 +104,000)	307,000
Current liabilities (8,200 + 4,700 – 400 (W8))	2,500
Total Equity and Liabilities	**381,400**

(C)

IFRS 10 Consolidated financial statements requires the parent company to prepare consolidated financial statements. Circumstances in which a parent entity may not be required to present consolidated financial statements under International Financial Reporting Standards:

1) Parent is a wholly-owned or partially-owned subsidiary and owners do not object to it not preparing consolidated financial statements.
2) Its securities are not publicly traded.
3) It is not in the process of issuing securities.
4) Ultimate or immediate parent publishes consolidated financial statements in accordance with IFRSs.

Workings

1. Group structure

Luapula Ltd

20%

Kawambwa Ltd

Mansa Ltd

Date of acquisition/control: 1/07/2024

(2.4m÷ 4m) x100%= 60% control, 40% NCI

Post-acquisition period: 6 months

2. Net Assets of Mansa

	Acquisition date 1/07/2024 K'000	**Reporting date 31/12/2024 K'000**	**Post acquisition movements K'000**
Stated capital issued	4,000	4,000	_
Retained earnings;			
(6500-(3000×6/12)	5,000	6,500	1,500
Fair value adjustment: plant	2,000	2,000	—
Depreciation adjustment:			
Plant (2000/5×6/12)	—	(200)	(200)
PUP on inventory			
(40/140× (10,000-7200)	—	(800)	(800)
	11,000	**11,500**	**500**

3. Goodwill computation at acquisition

	K'000
Cost of Investment (60% × 4,000 × 2/3 × K6)	9,600
Fair value of NCI at acquisition per question	5,900
	15,500
Less: Net Assets at acquisition (W2)	(11,000)
Total Goodwill at acquisition and consolidation	**4,500**

4. Consolidated retained earnings

	K'000
Luapula Ltd	
Balance at 31st December, 2024	35,100
Share of profit from associate (as per SP/L)	500
Mansa Ltd	
Group share of post-acquisition profit (60%×500 W2)	300
At consolidation	**35,900**

5. Non-Controlling interest- Mansa Ltd

K'000

Fair value of NCI at acquisition (W3)	5,900
Add: NCI's share of post-acquisition profit (40%×500)	200
At consolidation	**6,100**

6 Intragroup trading

	DR	CR
Cancel intragroup sales/purchases:	**K'000**	**K'000**
Sales	8,000	
Purchases		8,000
Eliminate unrealised profit:		
Cost of sales/ income surplus ((8,000 – 5,200) X 40/140)	800	
Inventories (SOFP)		800

7 Current assets

	K'000
Luapula Ltd	16,000
Mansa	6,600
Unrealised profit in inventory (W7)	(800)
Intercompany receivables (per question)	(600)
Cash in transit (W8)	200
	21,400

8 Cash in transit

	DR K'000	CR K'000
Receivables		600
Payables	400	
Cash	200	

SOLUTION TWO

Part (a)

Handie Limited Statement of Profit or Loss and OCI for the year ended 31 December 2024

	Working	K'000	K'000
Revenue	1		92,230
Cost of Sales	3		(61,527)
Gross Profit			30,703
Distribution Costs		8,500	
Administrative Expenses	(30,450-600)	29,850	(38,350)
Operating Loss			(7,647)
Finance Costs	(20,000-600) X 11.23%		(2,179)
Loss Before Tax			(9,826)
Income Tax Expense	5		(13,100)
Loss for the Year			(22,926)
OCI			
Revaluation of Property	4		(976)
OCI for the Year			(976)
Total CI for the Year			(23,902)

Workings to part (a)

	K'000
1. Revenue	
Per TB	80,524
Construction contract Revenue for the year (W2.)	11,706
	92,230

2. Construction contract Revenue, Profit and Cost of Sales

Percentage completion = Costs to date as percentage of estimated total cost = 8.3/(8.3+7.3)X100 =		53.21%
		K'000
Revenue for y/e 31.12.2024:		
Cumulative revenue to date at 31.12.24	53.21%X22m	11,706
Cumulative revenue to date at 31.12.23		(-)
Revenue for y/e 31.12.24		11,706
Estimated Total Profit		
Contract Price		22,000
Estimated Total Costs		(15,600)
Estimated Total Profit		6,400
Profit for y/e 31.12.2024:		
Cumulative profit to date at 31.12.24		3,405

Cumulative profit to date at 31.12.23		(-)
Profit for y/e 31.12.24		3,405

Cost of sales for y/e 31.12.24

Revenue		11,706
Cost of sales (balancing figure)		(8,301)
Profit		3,405

3. Cost of Sales

Per trial Balance		42,100
Construction contract cost of sales (w2)		8,301
Depreciation charge for the year:		
Property	42,000/41	1,024
Plant and equipment	(84,000-40,992)x20%	8,602
Loss on revaluation of property (w4)		1,500
		61,527

4. Revaluation of Property

Carrying amount b/d 1.1.24		42,000
Depreciation charge y/e 31.12.24		(1,024)
Carrying amount at 31.12.24 before revaluation		40,976
Revaluation loss at 31.12.24 (balancing figure)		(2,476)
Fair to report as carrying amount at 31.12.2024		(38,500)
Reporting the revaluation loss:		
Cost model carrying amount at 31.12.24	50,000x40/50	40,000
Loss to report in OCI	(40,976-40,000)	976
Loss to report in PL	(40,000-38,500)	1,500

5. Income Tax Expense

Current Tax Expense			
Provision for liability on taxable profits for y/e 31.12.24			7,200
Under provision for liability for previous year			5,300
Deferred Tax expense			
Liability at 31.12.24	30%x31,000	9,300	
		-	
Liability at 31.12.23		8,700	600
			13,100

Part (b)

Handie Limited Statement of Changes in Equity for the year ended 31 December 2024

	Working	Share Capital K'000	Share Premium K'000	Retained Earnings K'000	Revaluation Reserve K'000	Total Equity K'000
Balances at 1.1.2024	1	40,000	29,750	25,934	1,000	96,684
Changes in y/e 31.12.2024:						
				-	-	-
Total CI for the year	See part (a)			(22,926)	(976)	23,902
Issue of shares;						
At fair value	1	5,000	3,750			8,750
Bonus issue	1	5,000	(5,000)			-
Transfer to retained earnings	1,000/41			24	- (24)	-
Balances at 31.12.2024		50,000	28,500	3,032	0	81,532

Workings to part (b)

1. Opening Share Capital and Share Premium, and Share Issues.

		Share Capital K'000	Share Premium K'000
Balances at 31.12.2024		50,000	28,500
Issue at fair value on 1.4.2024:			
Nominal Value	5,000XK1	(5,000)	
Premium	50,00X75%		(3,750)
		45,000	24,750
Bonus Issue on 1.10.2024	1/10X50,000	(5,000)	5,000
Balances at 1.1.2024		40,000	29,750

Part (c)

Handie Limited Statement of Financial Position as at 31 December 2024.

Assets	Working	K'000	K'000
Non-current			
Property, Plant and Equipment	1		72,906
Current			
Inventory		23,400	
Trade Receivables	2	12,600	
Contract Asset	3	2,005	
Bank		12,200	50,205
Total Assets			123,111
Equity and Liabilities			

Share Capital (K1 Shares)			50,000
Reserves:			
Share Premium		28,500	
Retained Earning	See part (b)	3,032	
Revaluation Reserve	See part (b)	0	31,532
Total Equity			81,532
Non-current liabilities			
Deferred Tax	See W5. part (a)	9,300	
10% Loan Notes	4	19,579	28,879
Current Liabilities			
Trade Payables		5,500	
Current Tax		7,200	12,700
Total Equity and Liabilities			123,111

Workings to part (c)

1 Property, Plant and Equipment

Property		38,500
Plant and Equipment	(84,000-40,992-8602)	34,406
		72,906

2. Trade receivables

Per TB		8,500
Construction Contract Receivables	(9,700-5,600)	4,100
		12,600

3. Construction contract asset

Costs to date		8,300
Profit to date	See W2. part (a)	3,405
Progress billings		(9,700)
Contract Asset/(liability)		2,005

4. 10% Loan Notes

Net Issue Proceeds	(20,000-600)	19,400
Finance costs @ 11.23%	19,400X11.23%	2,179
Interest paid		2,000
		19,579

SOLUTION THREE

a) i) Brief discussion of IASB' Conceptual Framework

The purpose of the IASB's Conceptual Framework for the Preparation of Financial Statements is to provide information that will assist:

1) The IASB in developing accounting standards that are based on consistent concepts or principles,

2. Preparers of accounts in developing accounting policies in cases where there is no issued IAS/IFRS applicable to a particular transaction, or where a choice of accounting policy exists.

3. All stakeholders who review financial statements to understand and interpret the application of IFRS accounting standards.

ii) Recognition is the inclusion of monetary amounts of a transaction in the primary financial statements. This principally requires that amounts involved be included in the totals of assets, liabilities, income, expenses or equity, wherever they fall. This in other words means applying the rule of double entry correctly to process the transaction/event.

Measurement refers to application of one of the two bases for arriving at the monetary amounts of a transaction: historical cost and current value. Forms of current value bases for measuring transaction amounts include fair value, value in use (for assets) or fulfilment value (for liabilities), and current cost.

b) i) Explanation of purpose for accounting for deferred tax

The purpose of recording deferred tax for business houses is to provide for a more accurate picture of current year profit or loss by recognizing tax effects of temporary differences. This ensures that the tax expenses are matched to the accounting period in which profits are earned.

Adjustments for deferred are made in accordance with accruals concept and in accordance with the IASB's Conceptual Framework definition of a liability, i.e. a past event has given rise to an obligation in the form of increased taxation which will be payable in the future.

If the future tax consequences of transactions are not recognized, profits could be overstated, leading to overpayment of dividends and distortion of share price and Earnings Per Share (EPS).

ii) Computations of amounts of deferred tax liabilities

	Carrying Amount	Tax Base	Temporary Difference
	K	K	K
1 Jan 2021	200,000	200,000	
Deprecn = (200-12) ÷ 10 yrs	(18,800)		
Capital Allow. (200,000 x 30%)	______	(60,000)	
31 Dec 2021	181,200	140,000	41,200
2022			
Deprecn = (200-12) ÷ 10 yrs	(18,800)		
Capital Allow = (140,000 x 15%)	______	(21,000)	
31 Dec 2021	162,400	119,000	43,400
2023			
Deprecn = (200-12) ÷ 10 yrs	(18,800)		
Capital Allow= (119,000 x 15%)	______	(17,850)	
31 Dec 2021	162,400	101,850	42,450

ii) Amount of deferred tax to be reported in SPL for year to 31 Dec. 2023

To be Included in the SFP		**K**
DT Closing balance	20% x 42,450	8,490
DT Opening balance	20% x 43,400	(8,680)
Decrease in DT provision		(190)

To be Included in the SPL

Decrease in DT provision	
(income, reduction in Current Tax charge for the year)	(190)

SOLUTION FOUR

(a) (i) **Initial recognition**: a financial asset or financial liability should be recognised in the statement of financial position when the reporting entity becomes a party to the contractual provisions of the instrument.

Initial measurement of financial instruments

All financial instruments are initially measured at cost (fair value) plus in the case of a financial asset not at fair value through profit or loss, transaction costs. Subsequent measurement of financial assets; IFRS 9 divides all financial assets into three classifications, those measured at amortised cost and those measured at fair value through profit or loss and those measured at fair value through other comprehensive income.

The classification and measurement of financial assets is largely based on:
The business model for managing the asset, specifically whether or not the objective is to hold the financial asset in order to collect the contractual cash flows. Whether or not the contractual cash flows are solely payments of principal and interest on the principal amount outstanding. Where the business model for managing the asset is to hold the financial asset in order to collect the contractual cash flows and the contractual cash flows are solely payments of principal and interest on the principal amount outstanding, then the financial asset is normally measured at amortised cost.

Where the business model for managing the asset is to both hold the financial asset in order to collect the contractual cash flows and to sell the financial asset and the contractual cash flows are solely payments of principal and interest on the principal amount outstanding, then the financial asset is normally measured at fair value through other comprehensive income. Interest income on such assets is recognised in the same way as if the asset were measured at amortised cost.

In other circumstances, financial assets are normally measured at fair value through profit or loss. Notwithstanding the above, where equity investments are not held for trading, an entity may make an irrevocable election to measure such investments at fair value through other comprehensive income.

Finally, an entity may, at initial recognition, irrevocably designate a financial asset as measured at fair value through profit or loss if to do so eliminates or significantly reduces an accounting mismatch.

(ii) The finance cost of the loan is charged at the effective interest rate of 8% applied to the carrying amount of the loan. The issue costs of the loan should be deducted from the proceed of the loan, this gives an initial carrying amount of K24,000.

- Finance cost of K1,920 (K24, 000 x 8%) should be charged to profit or loss.
- Carrying amount of the non-current liability K24,420 (24,000 +1,920-1,500)

(b)

A bearer plant is accounted for according to IAS 16 property, plant and equipment. It is initially measured at cost and is subsequently measured using either the cost model or the revaluation model. Bearer plants are depreciated over their useful life; annual depreciation is charged in profit or loss.

Biological assets within the scope of IAS 41 are measured on initial recognition and at subsequent reporting dates at fair value less estimated costs to sell, unless fair value cannot be reliably measured. If there is no reliable measurement of fair value, biological assets are stated at cost less accumulated depreciation and accumulated impairment losses. If circumstances change and fair value becomes reliably measurable, a switch to fair value less costs is required. Changes in fair value less costs to sell are recognised in profit or loss.

(c)

i. **Functional currency**; the currency of the **primary economic environment** in which an entity operates. In **most cases** this will be the **local currency**. Results and position must be **measured** in this currency. Whereas **Presentation currency** is the currency in which the financial statements are presented. If the presentation currency is different from the functional currency, then the financial statements must be translated into the presentation currency.

ii. **Initial transactions**
When an entity enters into a transaction, this should initially be translated using the **historic** rate (the spot rate) prevailing at that date. An average rate for a period may be used if exchange rates do not fluctuate significantly.

Settled transactions
When a transaction is **settled** (when payment or receipt of cash occurs), this is translated at the historic rate prevailing at the date of settlement. Any exchange gain or loss is then recorded in the statement of profit or loss at that date.

Unsettled transactions
If a transaction is unsettled at the reporting date (meaning the amount is unpaid or a balance in a different currency is outstanding), then the **treatment depends on whether the item is a monetary or non-monetary item**. **Monetary items** are assets or liabilities to be paid in a fixed amount, or a unit of currency held, e.g. trade receivables, trade payables, cash, overdrafts, and loan notes. If the item is a monetary item, the balance will be **retranslated at the closing rate** (the exchange rate at the reporting date), with any gain or loss being recorded in the statement of profit or loss. **Non-monetary items** (such as inventory or property held under the cost model) are **not retranslated**. Instead, they are accounted for at the rate that existed at the date of the **initial** transaction.

(d)

(i) Distinguish between adjusting and non-adjusting events.
Adjusting events are those events, favourable or otherwise that provide additional information to what existed at the reporting date. They are therefore used to update the financial statements.

While non-adjusting events do not provide additional information to what existed at reporting date. They are therefore, simply disclosed in the financial statements.

(ii) Accounting treatment
IAS 10 requires that the amounts recognised in the financial statements be adjusted to take account of an adjusting event.

The standard also requires that disclosures be up-dated in the light of new information that relate to a condition that existed at the reporting date. IAS 10 prohibits the adjustment of amounts recognised in the financial statements to reflect non-adjusting events after the reporting date. However, if a non-adjusting event is material and its non-disclosure could influence the decisions of users, then an entity should make a disclosure.

SOLUTION FIVE

Report

To: Board of Directors, Manyuzu Plc Group
From: Financial Analyst
Date:
Subject: Comparative Analysis of the Financial Performance and Position of Kazi and Dwole .

1. Introduction

At your request, this report provides a comparative analysis of the financial performance and position of Kazi Limited and Dwole Limited with a view to recommending a suitable acquisition target.

The report is based on the financial ratios as highlighted in the appendix.

2. Financial Performance (Profitability)

2.1 Overall profitability

Based on the return on capital employed (ROCE), the overall profitability of Kazi is much better than that of Dwole. The ROCE of Kazi at 6.61 is more than three times that of Dwole at only 1.45.

It is apparent that the overall profitability of Kazi is better than that of Dwole mainly due to profit margins as analysed below.

2.2 Profit Margins

The net profit margin of Kazi at 8.65% is several times better than that of Dwole at only 2.08%. This is partly due to Kazi having better a GP of 48.38% compared with only 45.15% for Dwole.
With only a slight advantage on the GP margin, it must appear that Kwasi's source of a much higher net profit margin must be lower distribution and administrative expenses.

2.3 Asset Turnover

The two companies' efficiency in generating revenue from the available capital as measured by the asset turnover ratio is almost at the same level. However, Kazi's asset turnover is slightly higher at 0.76 compared with Dwole's at 0.70.

3. Liquidity and Working Capital Management

3.1 Overall liquidity

The both companies appear to be more than able to settle current liabilities as they fall due as assessed by both the current and the quick ratios. Kazi and Dwole current ratios stand at 4.59:1 and 3.92:1 respectively. Kazi's quick ratio stands at 3.38:1 compared with that of Dwole at 2.5:1.

It should be necessary to find out the industry average for the ratios as the companies' current and quick ratios exceed the benchmarks of 2:1 and 1:1 respectively by big margins. This could a sign of excessive working capital.

3.2 Working Capital Management Efficiency

Kazi's better overall liquidity appears to be supported by better inventory, receivables and payables days as highlighted in the appendix. However, it is important to consider the industry average position. For instance, Dwole's lower payables days of 34.17 days could be better than Kazi's position of 45.86 days if the industry average is below 34.17 days.

4. Gearing (Solvency)

Dwole's gearing level is much lower than that of Kazi as measured by the gearing ratio. Dwole and Kazi's gearing ratios were 12.71% and 33.47% respectively. Both companies therefore had gearing levels well below the benchmark of 50%.

However, Dwole's lower levels of profitability negatively impacted on its interest cover ratio at only 1.49 times compared with desired levels of at least 2.5 times. Though better than that of Dwole, Kazi's interest cover ratio at 2.33 times also slightly falls short of the benchmark of 2.5 times.

5. Conclusion

Though both companies appear to have similar levels of gearing, Kazi is more profitable and has better liquidity.

6. Recommendation

Based on the analysis in sections 2 to 4 and the conclusion in section 5 above, I recommend that Manyuzu acquires Kazi.

Appendix to the report - Financial Ratios

Area	Ratios	Formula	Kazi	Dwole
Profitability	ROCE	PBIT/CEX100	(18,250+13,750)x100/ (322,000+162,020) = 6.61%	(2,025+4,125)x100/ (369,200+53,740) = 1.45%
	Net profit margin	PBIT/RevenueX100	(18,250+13,750)X100/ 370,000 = 8.65%	(2,025+4,125)X100/ 296,000 = 2.08%
	GP margin	GP/RevenueX100	179,000X100/370,000 = 48.38%	133,650X100/ 296,000 = 45.15%
	Asset Turnover	Revenue/CE	370,000/(322,000 + 162,020) = 0.76 times	296,000/(369,200+ 53,740) =0.70 times
Liquidity	Current ratio	Current assets/Current liabilities	176,420/38,400 = 4.59:1	132,640/33,800 = 3.92:1
	Quick ratio	Current assets less inventory/Current liabilities	(176,420-46,800)/38,400 = 3.38:1	(132,640-48,200)/33,800 = 2.50:1
	Inventory days	Closing inventoryX365/COS	46,800X365/191,000 = 89.43 days	48,200X365/162,350 = 108.36 days
	Trade receivables days	Closing receivables X365/Revenue	99,020X365/370,000 = 97.68 days	84,440X365/296,000 = 104.12 days
	Trade payables days	Closing payablesX365/COS	24,000X365/191,000 = 45.86 days	15,200X365/162,350 = 34.17 days
Gearing	Gearing ratio	NCL/CEX100	124,000X100/(322,000 +124,000) = 28%	18,940X100/(36,920 0+18,940) = 5%
	Interest cover	PBIT/Finance costs	(18,250+13,750)/ 13,750 = 2.33 times	(2,025+4,125)/4,125 = 1.49 times

END OF SUGGESTED SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA APPLICATION ADVANCED DIPLOMA IN ACCOUNTANCY

CA 2.2: MANAGEMENT ACCOUNTING

TUESDAY 10 DECEMBER 2024

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)

Alpha Limited (A Ltd) was incorporated ten years ago and produces a range of health products for the Southern African Development Community (SADC) market. The Management Accountant is busy preparing budgets for the period from October to December 2024 and is currently compiling information relating to one of the company's newest products, Gamma.

Gamma is a refreshing natural drink. It is made up of two key natural ingredients, mineral water and green tea extract. The drink is packed in a 250ml bottle.

Details relating to this product are as follows:

1. Projected sales for the fourth quarter of 2024 are as follows:

	October	**November**	**December**
Sales in units (250ml bottles)	8,600	8,760	10,040

   The selling price of Gamma is K6.20 per bottle.
2. At 1 October 2024, the company expects to have an opening inventory of 1,960 bottles of Gamma.
3. The company has arranged to purchase top quality mineral water at a cost of K1.60 per litre, green tea extract at a cost of K24.00 per litre and recycled bottles at K0.20 per bottle. These prices have been fixed from 2023 to 2025.
4. At 1 October 2024, the company expects to have 4,000 litres of mineral water and 2,000 litres of green tea extract in inventory. It also expects to have 2,000 250ml recycled plastic bottles in inventory.
5. Projected closing inventory levels for the finished product and raw materials are as follows:

	End of October	**End of November**	**End of December**
Gamma (250ml bottles)	2,000	3,000	4,000
Mineral water (litres)	4,200	6,020	8,216
Green tea extract (litres)	2,000	2,000	4,000
Recycled plastic bottles	2,000	3,000	4,000

6. The budgeted labour cost per 250ml bottle is K1.20.
7. The budgeted variable overhead cost per 250ml bottle is K0.80.

Required:

(a) Prepare for the last three months of 2024:

   (i) A sales budget (in units and K). (2 marks)

(ii) A production budget in units. (4 marks)

(iii) A materials purchases budget (in units and K) for each material. (11 marks)

(iv) A labour cost budget. (2 marks)

(v) A variable production overhead cost budget. (2 marks)

(b) State five (5) reasons why a company should prepare budgets. (5 marks)

(c) Explain the difference between fixed and flexible budgets. (4 marks)

(d) Outline three (3) behavioural issues that may arise from the budgeting process. (6 marks)

(e) Explain Zero Based Budgeting (ZBB) and outline two (2) benefits of ZBB over traditional budgeting methods. (4 marks)

[Total: 40 Marks]

SECTION B

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

QUESTION TWO

New Beginnings Ltd (NBL) is a manufacturer of a variety of products. Management intends to launch a new product, product AA. Recently, NBL conducted a market research which showed that the maximum demand for product AA was 50,000 units each year. The research also showed that demand would reduce by 50 units for every K1 increase in the selling price and that demand would increase by 50 units for every K1 decrease in the selling price. The variable cost per unit is K200.

Required:

(a) Calculate:

(i) The quantity demanded to maximize profit (3 marks)

(ii) The price to maximize profit. (3 marks)

Note that if Selling Price (P) = a-bq, then Marginal Revenue (MR) = a-2bq.

Market research also showed that product AA is an innovative product and was to be launched on the market in a month's time. NBL decided to use market skimming to price the product during the introduction stage.

Required:

(b) Compare and contrast penetration and skimming pricing strategies for product AA during the introduction stage.

(4 marks)

NBL has always used rolling budgets for its planning process.

Required:

(c) Explain what is meant by a 'rolling budget' and explain two (2) disadvantages of rolling budgets.

(4 marks)

The supplier of component X used in the manufacturing of product AA has informed NBL that it will offer a quantity discount of 2% if it places an order of 5,000 components or more at any one time.

Details of component X are:

• Cost per component before discount	K4
• Annual purchases	75,000 components
• Ordering costs	K720 per order
• Holding costs	K6 per component per year

Required:

(d) (i) Calculate the total annual cost of holding and ordering component X using the economic order quantity method. Ignore the 2% quantity discount offer. (2 marks)

(ii) Calculate the financial benefit or otherwise of this decision and advise NBL if it decides to increase the order quantity to 5,000 components to earn 2% discount. (4 marks)

[Total: 20 Marks]

QUESTION THREE

(a) Muleli Ltd is a leading manufacturer of furniture in Zambia. The company manufactures these three garden furniture products, namely, chairs, benches and tables. The budgeted unit cost and resource requirements of each of these items are detailed below:

	Chair	**Bench**	**Table**
	K	K	K
Timber cost	5.00	15.00	10.00
Direct labour cost	4.00	10.00	10.00
Variable overhead cost	3.00	7.50	10.00
Fixed overhead cost	4.50	11.25	9.00
	16.50	43.75	39.00
Budgeted volumes per annum	3,500	1,900	1,350

These volumes are believed to equal the market demand for these products.

Fixed overhead costs are attributable to the three products on the basis of direct labour hours.

The cost of the timber is K2.00 per square metre.

The products are made from a specialized timber. A memo from the purchasing manager advises you that because of a problem with the supplier, this specialized timber is limited in supply to 20,000 square metres per annum.

The sales director has already accepted an order for 500 chairs, 100 benches and 150 tables which if not supplied would incur a financial penalty of K2,000. These quantities are NOT included in the market demand estimates above.

The selling prices of a chair, a bench and a table are K20.00, K50.00 and K40.00, respectively.

Required:

Determine the optimum production plan and state the total contribution that this optimal plan would yield. (10 marks)

(b) A timber merchant from Ndola forestry made a proposal to M Ltd to supply this specialized timber which is in short supply but at a cost of K4.5 per square metre.

Required:

(i) Explain the term shadow price. (2 marks)

(ii) Identify the shadow price which should be paid per square metre and comment on the acceptability of the offer. (4 marks)

(c) M Ltd has decided to produce a new line of bed which can be sold in its retail shops throughout the country.

It has provided you with the following information concerning the total cost of annual production and the prices at which the bed could be sold:

Annual production units	Total costs (K)	Selling price per unit (K)
2,500	100.3	70.8
5,000	186.3	66.7
7,500	287.8	62.5
10,000	405.0	58.3
12,500	537.8	54.2

Required:

Determine the optimal selling price for the bed. (4 marks)

[Total: 20 Marks]

<u>QUESTION FOUR</u>

DK Ltd is based in Lusaka and manufactures one product, a storage unit. This product is made from recycled plastic which it sells for K116 per unit. Production and sales data for each month of the second quarter of 2024 is as follows:

	April	**May**	**June**
Sales in units (actual)	9,600	10,000	15,200
Production in units (actual)	10,800	9,600	16,000

<u>Budgeted cost information for each month</u>

Product:

Direct materials: 1 square metre @ K8.40 per square metre.
Direct labour: 1 hour @ K20.50 per hour
Variable production overheads: 50% of direct labour

<u>Actual cost information for each month</u>

Fixed production overheads: K24,000.
Fixed selling overheads: K45,000
Sales commission: 10% of sales value

There was no opening inventory at 1 April 2024. Fixed production overheads are budgeted at K240,000 per annum and are absorbed into products based on budgeted normal output of 120,000 units per annum.

Required:

(a) Prepare a profit statement for each of the three (3) months using absorption costing principles. (6 marks)

(b) Prepare a profit statement for each of the three (3) months using variable (marginal) costing principles. (8 marks)

(c) Present a reconciliation of the profit or loss figures given in your answer to (a) and (b) together with an explanation of the reason for the difference. (3 marks)

The Managing Director of DK Ltd wants to use variable (marginal) costing principles as the basis for both management accounts and the company's financial statements.

Required:

(d) Outline three (3) reasons against this course of action. (3 marks)

[Total: 20 Marks]

QUESTION FIVE

Tabesita Ltd manufactures a single product. The product is manufactured in a single process by combining three raw materials, A, B and C.

For 2023, the standard cost of a litre of the product was established in the budget as follows:

Material	**Quantity**	**Price per litre**	**Standard cost**
	Litres	**K**	**K**
A	0.7	2	1.4
B	0.4	4	1.6
C	0.1	8	0.8
Loss in process	(0.2)		-
Standard cost per litre of output	**1.0**		**3.8**

In the month of January, 2,000 litres of finished products were produced from the process, and the actual direct material costs were as follows:

Material	**Quantity**	**Cost**
	Litres	K
A	1,340	2,970
B	910	3,450
C	240	1,900
		8,320

Required:

(a) Calculate the material price variance and the material usage variance for the period. (5 marks)

(b) Analyse the operational usage variance into a materials mix and a materials yield variance. (6 marks)

(c) Comment on the significance and usefulness of a materials mix and a materials yield variance, for management control purposes. (3 marks)

(d) Describe three (3) fundamental weaknesses in the traditional annual budgeting approach that exist regardless of the budgeting method that is used. (6 marks)

[Total: 20 Marks]

END OF PAPER

CA 2.2 SUGGESTED SOLUTIONS

SOLUTION ONE

(a) Functional budgets

(i) Sales budget

	October	**November**	**December**	**Total**
	K	**K**	**K**	**K**
Sales @K6.20 per bottle	53,320	54,312	62,248	169,880

(ii) Production budget in units (250ml bottles)

	October	**November**	**December**
	K	**K**	**K**
Sales	8,600	8,760	10,040
Closing inventory	2,000	3,000	4,000
	10,600	11,760	14,040
Less: opening inventory	1,960	2,000	3,000
Production required in 250ml bottles	8,640	9,760	11,040
Production requirements in litres (250/1000 x production)	2,160	2,440	2,760

(iii) Materials purchase budget

Each 250ml bottle contains 225ml or 90% mineral water and 25ml or 10% green tea extract

	October	**November**	**December**
Mineral water			
Production in litres	2,160	2,440	2,760
Mineral water required per 250ml bottle i.e 90%	1,944	2,196	2,484
Closing inventory	4,200	6,020	8,216
	6,144	8,216	10,700
Less: opening inventory	4,000	4,200	6,020
	2,144	4,016	4,680
Cost @ K1.60 per litre	K1.60	1.60	K1.60
Total cost(K)	**3,430.4**	**6,425.6**	**7,488**
Total mineral water purchases	**K17,344**		

	October	**November**	**December**
Green tea extract			
Production in litres	2,160	2,440	2,760
Green tea extract per 250ml bottle i.e 10%	216	244	276
Closing inventory	2,000	2,000	4,000
	2,216	2,244	4,276
Less: opening inventory	2,000	2,000	2,000
	216	244	2,276

	October	November	December
Cost @ K24.00 per litre	24.00	24.00	24.00
Total cost	**5,184**	**5,856**	**54,624**
Total green tea extract purchases	**K65,664**		

	October	November	December
Recycled plastic bottles			
Production in 250ml bottles	8,640	9,760	11,040
Closing inventory	2,000	3,000	4,000
	10,640	12,760	15,040
Less: opening inventory	2,000	2,000	3,000
	8,640	10,760	12,040
Cost @ K0.20 per bottle	K0.20	K0.20	K0.20
Total cost	**1,728**	**2,152**	**2,408**
Total recycled plastic bottle purchases	**K6,288**		

(iv) Labour cost budget

	October	November	December
Production in 250ml bottles	8,640	9,760	11,040
Cost to produce each bottle K1.20	K1.20	K1.20	K1.20
Production labour budget	**10,368**	**11,712**	**13,248**
Total production labour cost(K)	**K35,328**		

(v) Variable overhead budget

	October	November	December
Production in 250ml bottles	8,640	9,760	11,040
Cost to produce each bottle K0.80	K0.80	K0.80	K0.80
Variable overhead cost(K)	**6,912**	**7,808**	**8,832**
Total variable overhead cost	**K23,552**		

(b) Briefly outline reasons why a company should prepare budgets

- Agreed targets: budgets establish targets for all aspects of an organisation's operations.
- Identification of problems: budget preparation facilitates examination of all aspects of a business and may identify any factors that prevent an organisation from achieving its objectives.
- Identifies possible improvements: budgets identify any areas that may be improved increasing effectiveness and efficiency.
- Improves co-ordination: preparation of budgets requires managers to combine their plans and objectives with those of other managers and this ensures that each plan fits with the company's overall objectives.
- Control: once prepared budgeted figures are compared with actual results and a variance is extracted. The reasons for this variance are then investigated so as to make necessary corrections and control the company's operations.
- Improves communication: in preparing budgets the organisation must ensure that it communicates effectively with all those involved in the budget process. In addition, those preparing the budgets must communicate well with others involved in the process to ensure that a realistic but challenging budget is produced.

- Assists in evaluation of managers: budgets are often used to assess the performance of managers in achieving the budgeted outcomes.
- Any other relevant point.

(c) Difference between fixed and flexible budgets

A fixed budget, once developed and agreed, is not changed or altered if actual activity differs from budgeted activity. A flexible budget is prepared based on actual activity and shows what the budgeted costs and revenues would have been if the budget had been based on actual activity achieved. A flexible budget thus allows comparison of actual and budgeted costs and revenues based on the same activity level. It is much more useful than a fixed budget as it allows more meaningful variances to be calculated.

(d) Behavioural issues arising from the budgeting process

There are many reasons for preparing budgets. Three of these reasons, control, evaluation and motivation, often cause behavioural issues. Budgets facilitate control over costs by highlighting any differences arising between actual costs and budgeted costs. Budgets are used to evaluate managerial performance and also to motivate staff to perform better. It is important to address these three aspects when developing budgets otherwise behavioural problems may arise. Examples of potential problems/issues that may arise are:

1. Budgets facilitate comparison of planned outcomes with actual results allowing the organisation to improve sales performance, monitor capital expenditure projects, forecast cash flows and control expenditure levels. In terms of behavioural consequences, it is important that managers understand the budgeting process when the organisation is trying to reduce and control its expenditures. Better understanding of the budgeting process should promote a more questioning approach towards potential costs and discourage inefficiencies from being carried forward from one year to the next.
2. If managers are being evaluated and possibly remunerated based on budgeted outcomes, these outcomes must be within managerial control i.e. controllable by the manager rather than by head office, for example. If the manager has limited or no control over budgeted outcomes he/she may consider any evaluation based on these outcomes as unfair and become less motivated to improve performance.
3. If managers are not involved in developing the overall budget for the organisation they will be less committed and motivated to achieve the desired results. However, sometimes when managers are involved in the budgeting process they may attempt to secure easier, less challenging targets. Managers may include some 'budgetary slack', which means that budgeted costs may be overstated and budgeted revenues may be understated.
4. Any other relevant issues

(e) Explanation ZBB and Outlining of TWO benefits of ZBB over traditional budgeting

Zero Based Budgeting (ZBB) implies a different approach from traditional budgeting. It requires activities to be re-evaluated each time a budget is produced. Each functional budget is prepared on the basis that each cost element is justified as though the activities were occurring for the first time. N o item of expenditure is included in the budget without full prior evaluation and justification. ZBB attempts to eliminate unnecessary expenditure being retained in budgets from year to year.

Advantages of Zero Based Budgeting

Any TWO of the following:

- It eliminates unnecessary expenditure being retained in budgets
- It allows questions to be asked by managers before committing funds and not afterwards as in traditional budgeting
- It focuses attention on achieving value for money
- It leads to a greater understanding by management of the workings of the organization
- If properly implemented, it should lead to a more efficient allocation of resources
- Any other relevant point

SOLUTION TWO

(a)

(i) Profit Maximising Quantity

P = a-bq

When q = 50,000, P = 0

0+1/50x50,000= a= 1,000

P =1,000 – 0.02q

MC = MR MC= 200

MR=a-2bq

MR = 1,000 – 2(0,02q)

200 = 1,000 – 0.04Q

Q = 20,000

(ii) Profit Maximising Price

P = a-bq

P = 1,000 – 0.02 (20,000)

P = K600

(b) **Comparing and Contrasting Penetration and Skimming Pricing Strategies.**

- **Market Skimming**

This strategy would seem to be appropriate because product AA is innovative and different from any other product on the market. Since the product is new and exciting, charging a high price would help target early adopters in the introductory stage. As the market is new for this product, NBL would start with a high price and adjust downwards over the product life cycle.

Furthermore, allowing Product AA to be produced in small quantities would be advantageous in that good cash flows would be generated to recoup the development and research costs.

- **Market Penetration**

This is the alternative pricing strategy when launching a new product. The strategy is to charge a low price in order to grow sales and gain a large market share.

The advantage of this strategy is that product awareness would be created, potential entrants would be scared off and may allow NBL to achieve economies of scale.

However, market skimming provides a good fit for Product AA and NBL is advised to adopt it. This is because the product is differentiated and, therefore, there would be very little competition.

(c) **Explanation of 'Rolling Budget' and TWO disadvantages of rolling budgets.**

A rolling budget is a continuously updated budget whereby a further period's budget is added at the end of the budget when the earliest period has expired. The remainder of the budget might also be updated at this point. For example, if rolling budgets are prepared quarterly, four quarter's rolling budgets will be available at any one time. As each quarter comes to an end, a new quarter is added at the end of the budget to replace the current quarter just ending.

Disadvantages of rolling budgets include:

(i) They are time consuming and costly

(ii) Can be difficult to communicate frequent budget changes

(iii) Each revised budget may require revision of standards or inventory valuations which could put additional pressure on the accounts department each time a rolling budget is prepared.

(d)

(i) Total Annual Cost of Holding and Ordering Inventory

EOQ = √(2CD/H)
= √(2x720x75,000/6)
= √(18,000,000)
= **4,242 units**

Holding cost = Q/2 x H = 4,242/2 x K6 = K12, 726
Ordering cost = D/Q x C = 75,000/4,242 x K720 = K12, 730
Total costs = **K25, 456**

(ii) Financial Benefit or Otherwise of Decision

Current costs

	K
• Purchase costs(75,000 x K4)	300,000
• Holding and ordering costs	25,456
• Total current costs	**325,456**

Revised costs with bulk discount

	K
• Purchase costs (75,000 x K4 x 98%)	294,000
• Holding costs[(5,000/2) x K6)]	15,000
• Ordering costs[(75,000/5,000)] x K720	10,800
• New total costs	**319,800**

(Extra cost)/saving = K325, 456 – K319, 800 = **K5, 656**

Advice: Division B should accept the discount offer because it is going to save K5, 656.

SOLUTION THREE

a)

	Chair	Bench	Table
	K	K	K
Seling price	20	50	40
Variable cost	12	32.5	30
Contribution/unit	8	17.5	10
Timber/unit	2.5	7.5	5
Contribution/sqm	3.2	2.33	2
Ranking	1st	2nd	3rd

The optimal production plan

Product	Timber/Units	Demand	Required timber
Special order			
Chair	2.5	500	1,250
Bench	7.5	100	750
Table	5	150	250
			2,750
Chair	2.5	3,500	8,750
Bench	7.5	1,133	8,500

Since the optimal plan includes production of sufficient quantities of each item to meet the order, there is no need to consider the financial penalty.

Total contribution

- Chairs: 4,000 x K8 = K32,000
- Benches: 1,233 x K17.5 = K21,577.50

Total contribution **K53,577.50**

b)

i) A shadow price is also known as maximum price or dual price. It's a maximum amount more than normal price to be paid to obtain one unit of scarce resources when it became available. The shadow price is the price at which the purchaser makes a nil contribution from it use.

Management can use the shadow price as a measure of how much they would be pay to gain more of a scarce resource over and above the normal price subject to any non-financial issues.

ii) The present situation is that demand for chairs and tables is fully satisfied from the existing resources, but there is some unsatisfied demand for benches. Thus, any additional timber would be used to manufacture more benches.

Based on the current input cost of K2.00 sqm each of timber earns a contribution of K2.33. Thus, the maximum price to be paid is the sum of these values, i.e. K2+K2.33 = K4.33 per sm.

Offer price	4.50	2.50
Shadow price	(4.33)	(2.33)
Excess of	0.17	0.17

Therefore, the offer should be rejected.

c)

Tabulated below are the total cost and revenue figures together with profit at each activity level to determine optimal selling price. The same result has been reached by comparing marginal cost and revenue figures.

Selling price	**production/sales**	**Total revenue**	**Total cost**	**Profit**
		K	K	K
70.8	2,500	177,000	100.30	76,700
66.7	5,000	333,500	186.30	147,200
62.5	7,500	468,750	287.80	180,950
58.3	10,000	583,000	405.00	178,000
54.2	12,500	677,500	537.80	139,700

It can be seen from the profit column that profit is maximized where the selling price is set at K62.5, as this gives the highest profit of a K180,950.

SOLUTION FOUR

(a) **Profit statements for DK Ltd for the months of April May and June 2023 using absorption costing .**

	April		May		June	
	K	K	K	K	K	K
Sales		1,113,600		1,160,000		1,763,200
Cost of sales:						
Opening inventory	0		49,380		32,920	
+ Production	444,420		395,040		658,400	
- Closing inventory (W2)	(49,380)	395,040	(32,920)	411,500	(65,840)	625,480
Under/(over) absorbed overhead (W3)		2,400		4,800		(8,000)
Gross profit		716,160		743,700		1,145,720
Variable sales commission (10% sales value)	111,360		116,000		176,320	
Fixed selling overheads	45,000	(156,360)	45,000	(161,000)	45,000	(221,320)
Profit		559,800		582,700		924,400

(b) **Profit statements for DK Ltd for the months of April May and June 2023 using variable (marginal) costing**

	April		May		June	
	K	K	K	K	K	K
Sales		1,113,600		1,160,000		1,763,200
Cost of sales:						
Opening inventory	0		46,980		31,320	
+ Production	422,820		375,840		626,400	
- Closing inventory (W2)	(46,980)		(31,320)		(62,640)	
Variable production cost of sales		375,840		391,500		595,080
Sales commission (10% sales value)		111,360		116,000		176,320
Contribution		626,400		652,500		991,800
Fixed production overhead costs	24,000		24,000		24,000	
Fixed selling overheads costs	45,000	(69,000)	45,000	(69,000)	45,000	(69,000)
Profit		557,400		583,500		922,800

(c) **Reconciliation of absorption and variable (marginal) costing profit figures**

	April (K)	May (K)	June (K)
Profit per absorption costing	559,800	582,700	924,400
Less fixed production overhead in inventory			
(0 - 1,200) *K2	(2,400)		

(1,200 – 800) *K2		800	
(800 – 1,600)*K2			(1,600)
Profit per variable costing	557,400	583,500	922,800

Workings:

W1: Calculation of product cost

Total product cost per unit under absorption costing

	K
Direct materials: 1 sq mtr x K8.40 per sq mtr	8.40
Direct labour: 1 hr x K20.50 per hr	20.50
Variable production overhead: 50% direct labour	10.25
Fixed production overhead (K240,000/120,000)	2.00
Total product cost per unit	41.15

Total product cost per unit under variable costing

	K
Direct materials: 1 sq mtr x K8.40 per sq mtr	8.40
Direct labour: 1 hr x K20.50 per hr	20.50
Variable production overhead: 50% direct labour	10.25
Total product cost per unit	39.15

W2: Calculation of changes in inventory

	April (units)	**May (units)**	**June (units)**
Opening inventory	0	1,200	800
Production	10,800	9,600	16,000
Total inventory available	10,800	10,800	16,800
Sales	9,600	10,000	15,200
Closing inventory	1,200	800	1,600

W3: Calculation of Under/Over absorbed overhead

	April (K)	**May (K)**	**June (K)**
Actual fixed production overhead	24,000	24,000	24,000
Absorbed fixed production overhead	21,600	19,200	32,000
Under/(over) absorbed overhead	2,400	4,800	-8,000

The reason for the difference in profit between absorption and variable (marginal) costing relates to the treatment of fixed production overheads. In variable (marginal) costing all of the fixed production overheads are included as a period expense. However, with absorption costing part of the fixed production overheads are included in unsold inventory and carried forward to the next accounting period.

(d) TWO reasons against using variable (marginal) costing:

(i) Variable (marginal) costing is not an acceptable basis for valuation of inventory for financial reporting purposes as it is contrary to accounting standards.

(ii) It may cause a business to accept work or price contracts such that fixed costs will not be covered and losses may be incurred.

(iii) It may cause difficulties in pricing products as pricing policies are often based on product cost plus an appropriate mark up. If variable costing is used the mark up selected must be sufficient to cover fixed costs and desired profit, which makes calculation of selling prices difficult.

(iv) Any other relevant point

SOLUTION FIVE

a) Material price variance

Material A price variance

1,340 litres should have cost x K2 Per litre	=	2,680
But did cost	=	2,970
Variance in litres		**290 (A)**

Material B price variance

910 litres should have cost x K4 Per litre	=	3,640
But did cost	=	3,450
Variance in litres		**190 (F)**

Material C price variance

240 litres should have cost x K8 Per litre	=	1,920
But did cost	=	1,900
Variance in litres		**20 (F)**

Materials: usage variance

Material A usage variance

2,000 litres should have used x 0.7 litres per unit	=	1,400 litres
But did use	=	1,340 litres
Variance in litres		60 litres (F)
Standard cost per litre		X K2
Variance		**K120 (F)**

Material B usage variance

2,000 litres should have used x 0.4 litres per unit	=	800 litres
But did use	=	910 litres
Variance in litres		110 litres (A)
Standard cost per litre		X K4
Variance		**K440 (A)**

Material C usage variance

2,000 litres should have used x 0.1 litres per unit	=	200 litres
But did use	=	240 litres

Variance in litres	40 litres (A)
Standard cost per litre	X K8
Variance	**K320 (A)**

b) Material mix variance

Materials	Actual usage	Std mix of actual	Mix variance	Std price per litre	Mix variance
	litres	litres	litres		K
A	1,340	1,452.5	112.5 (F)	K2	225 (F)
B	910	830.0	80.0 (A)	K4	320 (A)
C	240	207.5	32.5 (A)	K8	260 (A)
	2,490	2,490.0	0		**355 (A)**

Material Yield variance

2,000 litres of output should use x 1.2	2,400 litres
But did use	2,490 litres
Yield variance in litres	90 litres (A)
Standard cost per litre of input (K3.8/1.2)	K3.1667
Yield variance	**K285 (A)**

c)

A materials mix and yield variance can be useful for control purposes when several materials are mixed together in a process, and the mix of the materials is controllable by the manager responsible for the process. An adverse mix variance indicates that the mix of materials has been more expensive than the standard mix.

If the mix of materials is controllable, there is little information value in calculating the usage variance of each individual material. Instead, it is appropriate to calculate a yield variance for all the materials in total. A yield variance should be of control value, on the assumption that the quantities of materials used are controllable- for example, management should be able to control waste or scrap levels.

d)

The annual budget model has several inherent weaknesses. These exist no matter what approach to budgeting is used.

i The budget is for a one-year period. Targets are set for the 12 months and actual performance is measured on the basis of achievements in one year. However, to achieve strategic change, planning needs to be for the longer term and performance should be measured by progress towards longer term objectives as well as shorter term achievements. The annual budget is not compatible with longer-term planning.

ii The annual budget is also seen as a system for imposing financial discipline and control. This focus on financial targets and cost control is not compatible with setting corporate objectives, where external factors and competitiveness are just as important as internal efficiency and financial returns.

iii It can be argued that the annual budget process adds little value and is unnecessary. It wastes management time, since management should be doing other things to add value and contribute to the entity's objectives.

iv There is also an argument that the annual budget is to rigid and discourages change once the budget targets have been agreed. Management will focus their attention and efforts on achieving the agreed targets, even though circumstances might charge and the budget targets might no longer be the most appropriate.

v In theory, the budgeting process should help management to identify 12-month objectives that are in the best interest of the entity and that will help it to achieve its longer-term objectives. In reality, however, the budgeting is often a battle between managers for resources and status. Budget targets are often the result of negotiated compromises rather than rational decisions.

END

CA ZAMBIA PROGRAMME EXAMINATIONS

CA APPLICATION ADVANCED DIPLOMA IN ACCOUNTANCY

CA 2.3: AUDITING PRINCIPLES AND PRACTICE

THURSDAY 12 DECEMBER 2024

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

INSTRUCTIONS TO CANDIDATES

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

2. This paper is divided into TWO (2) sections:
   Section A: One (1) Compulsory scenario question.
   Section B: Four (4) Optional Questions. Attempt any Three (3) questions.

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

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

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

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

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

8. Present legible and tidy work.

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

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

SECTION A

This question is compulsory and must be attempted.

QUESTION ONE – COMPULSORY

You work for Rose & Associates as Audit Senior. Your firm of chartered accountants has been appointed auditor of Kaoma Plc, a mining company, and you have been assigned as Audit Senior on the audit of the financial statements for the year ended 31 March 2024. You recently joined Rose & Associates after resigning from Kaoma Plc where you worked as Chief Accountant. The Senior Partner in Rose & Associates is a Non-Executive Board member of the board of Directors of Kaoma Plc. The acquisition of Kaoma Plc. as an audit client will contribute 16% of the firm's total income.

This is the first time that your firm will be involved in an audit of a company in the mining industry. Kaoma Plc. is in gemstone mining on the Copperbelt. The company holds large quantities of unpolished gemstones and has a Polishing Department which polishes gem stones for sale. The mining license specifies the area within which the mining activities should be conducted. The mining license also provides that at the end of the mining activities the company will be required to rehabilitate the area in which mining activities are taking place. The financial statements include a provision for land rehabilitation.

The bulk of Kaoma Plc.'s polished gemstones are sold outside the country by way of auction using an auctioneer based in the United Kingdom. The company has an overseas dollar bank account and transfers funds for operational use to the local kwacha bank account. The company is required to declare the quantity and value of polished gemstones exported for auctioning and tax is computed based on the annual revenue. Under declaration of exported gemstones could result in heavy penalties by the revenue authority and consequently could result in the withdrawal of the mining license.

In the pre-audit meeting with the Management of Kaoma Plc., Management proposed that the audit engagement should be for a limited assurance rather than a reasonable assurance. Management argued that this would be cheaper for the company and that the company has an internal audit department which performs pre-audits of all accounting transactions. The Chief Executive Officer of Kaoma Plc went on to argue that even if your firm conducts a full audit of the financial statements, it will not guarantee that the financial statements are correct.

At the time that Rose & Associates accepted appointment as auditor of Kaoma Plc. it requested Management to provide written representations acknowledging its responsibilities. Rose & Associates commenced the audit before receiving the acknowledgement of management's responsibilities. Efforts to get the representations by the audit team failed and this has been brought to the attention of the firm's senior staff.

Required:

(a) Explain four (4) the ethical matters in the audit of the financial statements of Kaoma Plc. and for each matter suggest a suitable safeguard. (8 marks)

(b) (i) Explain four (4) audit risks that must be considered at the planning stage of the audit of the financial statements of Kaoma Plc. (8 marks)

(ii) Explain how audit risk impacts on the materiality level set at the planning stage and during the audit. (2 marks)

(c) (i) Explain the pre-conditions for an audit that must have been met by Kaoma Plc before Rose & Associates accepted appointment as auditors of Kaoma Plc. (6 marks)

(ii) Explain the action that Rose & Associates should take in view of the fact that management of Kaoma Plc. has not acknowledged its responsibilities. (2 marks)

(d) (i) Explain why a limited assurance will not be appropriate for an audit of historical financial statements. (8 marks)

(ii) Explain four (4) reasons why Rose & Associates cannot give an absolute assurance after the audit of the financial statements of Kaoma Plc. (6 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt any THREE (3) questions.

QUESTION TWO

You have been assigned to the final audit of the financial statements of Giraffe Ltd for the year ended 31 March 2024. You have just attended a pre-audit meeting at which the audit team was informed that random sampling will be used in selecting items for testing. The results of the sample tests will then be used to conclude on the financial statements as a whole.

The audit team conducted substantive audit procedures and the audit is nearing completion. During attendance of the inventory count, the audit team observed a significant volume of obsolete inventory which was isolated and appropriately valued at the lower of cost and net realizable value. The draft financial statements contained an amount of K1.2 million as a provision for a legal case where the company was sued for wrongful dismissal by a group of employees. The outcome of the case could have far reaching consequences on the ability of Giraffe Ltd as a going concern. The case has been in court for the past two (2) years and court determination is expected within the next three (3) months. No work has been performed with regards to subsequent events during the current audit.

The schedule of uncorrected misstatements shows an amount of K1.1 million against a materiality figure of K1.5 million determined at the planning stage of the audit. A request by the Audit Senior that an adjustment be made to the financial statements with regards this figure was declined by management. Management argued that the uncorrected misstatements are immaterial to the financial statements and any adjustment would result in the company not meeting its performance targets.

Management of Giraffe Ltd made an assessment of the ability of the company as a going concern and concluded that it is a going concern. This is despite the fact that there is a legal case against the company involving possible liabilities to former employees.

Required:

(a) Explain sampling and non-sampling risks in the audit of the financial statements of Giraffe Ltd. (4 marks)

(b) Explain the procedures that should be performed by the audit team to identify subsequent events that may require adjustments to the financial statements of Giraffe Ltd. (6 marks)

(c) Describe the written representations that the audit team should obtain from management in the finalization of the audit of the financial statements of Giraffe Ltd. (4 marks)

(d) Evaluate the uncorrected misstatements in the audit of the financial statements of Giraffe Ltd and suggest a suitable audit opinion. (6 marks)

[Total: 20 Marks]

QUESTION THREE

Your firm of Chartered Accountants was appointed auditor of Luangwa Ltd at the last annual general meeting of the company. Your firm recently recruited new Audit Assistants and most of them will be conducting audits for the first time. During the pre-audit meeting, one (1) of the newly recruited Audit Assistants, who is a graduate in economics, wanted to know if as auditors they have any rights in the conduct of audits.

You are leading a team of auditors assigned to the audit of the financial statements of Luangwa Ltd for the year ended 31 March 2024. During the current year, Luangwa Ltd introduced the use of petty cash for the first time. Previously, money from sales proceeds was used to meet petty cash payments and this caused a lot of problems reconciling revenue. The introduction of the use of petty cash was made based on the recommendations of the previous auditors.

The following is the petty cash system in use:
A float of K1.5 million was approved and this is under the custody of the Chief Cashier who is also responsible for receiving and banking sales proceeds. The petty cash is kept together with the rest of the cash except that when banking, the balance for petty cash is retained and not banked. Payments out of petty cash are based on un-numbered petty cash vouchers signed by the recipients of the money. It is required that once funds have been spent, the receipts/invoices should be retired to the cashier who then will pass the accounting entries for the expenditure. When the float is almost exhausted, the cashier raises a payment voucher amounting to the expenditure to date as re-imbursement.

You have been provided the draft financial statements for the year ended 31 March 2024 from which the following figures were extracted:

Accounts payables and accruals	(**Note 1**)	K24.3m

Note 1:
Breakdown of accounts payables & accruals:

Accounts payables	K18.0m
Accrual for water & electricity	2.1m
Provision for legal case	1.8m
General provision	2.4m
Total	K24.3m

A schedule of the accounts payables showing the breakdown has been provided and an accounts payables control accounts is maintained.

You would like to assign the audit of the accounts payables and accruals amount to one (1) of the Audit Assistants. You need to prepare the audit plan showing the work that should be done for the assistant to follow.

Required:

(a) State four (4) rights of statutory auditors. (4 marks)

(b) Explain four (4) control activities for the management of petty cash in Luangwa Ltd and suggest a suitable test of control for each control activity. (8 marks)

(c) (i) Suggest four (4) substantive audit procedures for the amount of accounts payables in the financial statements of Luangwa Ltd and state the assertion being tested for each procedure. (4 marks)

(ii) Suggest four (4) substantive audit procedures for accruals in the financial statement of Luangwa Ltd. (4 marks)

[Total: 20 Marks]

QUESTION FOUR

You are the Audit Supervisor in Pamba & Co (Pamba) a firm of Chartered Certified Accountants which has seen its revenue decline steadily over the past few years. The firm is looking to increasing its revenue and client base. It has been advertising for new audit clients and has recently received an offer to become auditors of Chuma Co (Chuma).

You are aware that during the audit, auditors are required to use either statistical sampling techniques or non-statistical sampling techniques to obtain sufficient and appropriate audit evidence. This evidence only becomes useful if it is relevant and reliable.

During the year, a number of Chuma Co.'s significant customers experienced a drop in sales revenue, and consequently they purchased fewer items from Chuma. As a result, Chuma paid a number of its suppliers later than usual and twenty-five (25) of them withdrew credit terms and required cash on delivery. Ten (10) of Chuma's main suppliers are threatening to take legal action to recover the debts owed.

As a result of the increased level of payables, Chuma Co.'s current ratio has fallen below 1 to 0.5. Chuma produced a cash flow forecast for the next twelve (12) months and this shows negative cash flows.

The Finance Director of Chuma informed the Audit Manager that there is a possible change in legislation which will result in the discontinuance of the top three (3) product lines as it may not comply with the proposed law. Despite this, management of Chuma Co. prepared the financial statements on a going concern basis.

Required:

(a) Explain four (4) factors to consider prior to accepting the audit of Chuma Co. (4 marks)

(b) Explain four (4) factors which influence the reliability of audit evidence. (4 marks)

(c) Explain five (5) potential indicators that Chuma Co is not a going concern. (5 marks)

(d) Describe the audit procedures which the auditor should perform in assessing the going concern ability of Chuma Co. (7 marks)

[Total: 20 Marks]

QUESTION FIVE

Kangaroo Plc. is a company that has a board of directors comprising three (3) executive directors and five (5) non-executive directors. The board of directors is proposing the setting up of an audit committee in the current year.

At the previous annual general meeting, it was resolved that the company should prepare monthly management accounts for internal use and that these should be audited by the Internal Audit department. The internal audit department is headed by a Chief Internal Auditor who reports to the Finance Director. The internal audit department is responsible for the review of the risk and internal control systems of Kangaroo Plc. It was further resolved that half year interim financial statements should be prepared and that the statutory auditors should conduct a review of the interim financial statements and submit a report thereafter.

You are the Audit Senior responsible for the audit of the financial statements of Kangaroo Plc. for the year ended 31 March 2024. The engagement letter requires your firm to conduct a review of the interim financial statements in addition to conducting the year end statutory audit of the financial statements.

A review of the audit working papers by the Audit Manager indicated that the audit team obtained sufficient appropriate audit evidence and that that there were no matters of concern that could adversely impact the financial statements.

The financial statements of Kangaroo Plc for the year ended 31 March 2023 were audited by a different firm of auditors. In response to the request by the Audit Manager that this should be included in the audit report, the Audit Senior suggested that it should be included in the emphasis of matter paragraph of the audit report.

Required:

(a) Explain the difference between the review of the interim financial statements and the statutory audit clearly explaining the levels of assurance for each of them. (6 marks)

(b) (i) Explain the roles of management and the board of directors in running the affairs of Kangaroo Plc. (4 marks)

(ii) Explain four (4) roles of the non-executive board members of the board of directors of Kangaroo Plc. (6 marks)

(c) (i) Suggest, with justification, a suitable audit opinion that should be issued in the audit of the financial statements of Kangaroo Plc. (1 mark)

(ii) Comment on the suggestion by the Audit Senior to include the fact that financial statements of Kangaroo Plc for 2023 were audited by different auditors in the emphasis of matter paragraph. (3 marks)

[Total: 20 Mark

END OF PAPER

CA 2.3 AUDITING PRINCIPLES AND PRACTICE SUGGESTED SOLUTIONS

SOLUTION ONE

(a) Ethical matters and suitable safeguards:

	Ethical matter	Safeguard
1	Recent employment with assurance client – the audit senior worked for Kaoma Plc. until he recently resigned and joined Rose & Associate. Being assigned as Audit Senior to a company recently worked for will result in a self-review and familiarity threats. This will impact on the independence and objectivity of the Audit Senior.	Someone else should be appointed Audit Senior and not someone who until recently worked for Kaoma Plc.
2	Partner on client board – the Senior Partner of Rose & Associates being a member of the board of Kaoma Plc. will impact on the objectivity of the senior Partner and it creates a self-interest threat.	The Senior Partner should resign from the board of Kaoma Plc.
3	Over-reliance on a client – Guidance provides that audit firms should not rely on one client for most of its fee income because this will result in a self-interest threat and affect the objectivity of the firm which does not want to lose such a client. A bench mark of 15% is set and the fee income expected from Kaoma Plc. will amount to 16% of the total fee income.	The firm should reduce this reliance or quality control reviews of the working papers for the audit of Kaoma Plc. by someone who was not part of the assurance team.
4	Kaoma Plc. will be the first mining client of Rose & Associates. There is a chance that the firm does not have the resources with the necessary skills and competences to conduct a quality audit. This is contrary to the ethical principles of professional competence and due care.	The firm should train its staff in key areas of auditing mines and also consider to use the services of an auditor expert.
5	Rose & Associates accepted appointment and commenced conducting the audit before obtaining the necessary written representations from management acknowledging its responsibilities for the preparation of the financial statements and putting in place internal control.	Rose & Associates should regularize their appointment and get the necessary representations. If management does not provide these representations the firm should consider resigning from the engagement.

(b) (i) Audit risks in audit of Kaoma Plc.

	Audit risk explanation	FS Assertion
1	Kaoma Plc. is subject to observing the listing requirements failure to which the company may face penalties for not doing so. These could include having the shares de-listed on the securities exchange.	Provisions may be understated or the going concern ability may be impacted.
2	First time for the firm to audit a company in the mining industry. There is a risk that the audit team may not have the skills and competences necessary to undertake a quality audit.	Detection risk is high which could result in material misstatements going undetected resulting in the misstatements of the financial statements.
3	Valuation of finished inventory and work in progress – Specialist skills to determine the quantity and value of finished goods as well as work in progress may be required. The audit team may not have these skills and competences to do this.	Inventory value may be misstated which will result in the misstatement of the financial statements.
4	The determination of the provision for rehabilitation of the land may be incorrect since this is an accounting estimate and involves judgment.	Provisions may be misstated leading to a misstatement of the financial statements.
5	Non-compliance with laws and regulations including wrong declarations of exports leading to reduced tax could lead to heavy penalties and in extreme cases a revocation of the operating license.	Provisions may be understated leading to the financial statements being understated and revocation of the license has implications on the going concern ability of the company which impacts the basis of the preparation of the financial statements.

(ii) Level of materiality at planning stage of the audit of Kaoma Plc.:
The audit team is required to determine the risk level of the audit at the planning stage. This is a matter of professional judgment and risk should be classified as either high or low and should be within acceptable level by the audit team.

If audit risk is higher than the acceptable tolerable level, then the audit should not go ahead because the risk of making an inappropriate opinion is considered high.

Audit risk impacts the level of materiality that is set by the audit team at planning stage. If it is high but tolerable, materiality level will be set at a low level while if the audit risk at planning stage is assessed as low, the materiality level will be set at a higher level.

If during the stage of gathering evidence it is established that the risk characteristics are different from those at the planning stage, the auditors may amend and change the materiality levels in view of this. If for example at planning stage audit risk was assessed as low and during the audit it is established that it is in actual fact high, the audit team may change materiality level to a lower amount.

(c) (i) Pre-conditions before accepting an audit appointment:

1. The use of the applicable financial reporting framework in the preparation of the financial statements by management. For example, Kaoma Plc. is in the mining industry, the company is expected to use the financial reporting framework applicable to the mining industry.
2. The acknowledgement of management regarding its responsibilities as follows:
   - Management's responsibility for the preparation of the financial statements according to the applicable financial reporting framework.
   - Putting in place internal controls necessary to enable the preparation of financial statements that are free from material misstatements and
   - That management will provide the auditor with the information they require to conduct the audit and that the auditors will access to all information that management is aware of used in the preparation of the financial statements. That there shall be unrestricted access to staff if the entity whom the auditors determine is necessary to obtain the necessary audit evidence.

(ii) Action if pre-conditions not met:
Generally, if the preconditions for an audit are not met the auditors should not go ahead with the engagement. If it is for an ongoing engagement and the pre-condition no longer exist, the engagement should be terminated.

(d) (i) Why limited assurance not appropriate for an audit.
Listed companies are public interest entities and they are required to have their financial statements audited annually by statutory auditors.

Reviews are alternatives to audits and are usually done on interim financial statements or requested by entities not required to undergo audits.

Reviews are not appropriate in the case of Kaoma Plc. for the following reasons:

1. Having a review of the financial statements of Kaoma Plc. would be against the listing requirements which require an audit to be conducted.
2. Reviews are a lower level of assurance. The shareholders and other stakeholders require a high level of assurance on how management fulfilled its role as stewards on behalf of the shareholders.
3. The work performed in a review is limited to inquiries and analytical procedures thereby making the risk that an inappropriate conclusion high.
4. The report issued in a review is in negative form suggesting that something that may cause material misstatements may be present but it has not come to the attention of the auditors.

5. Most regulatory frameworks require audits to be conducted on financial statements of listed companies and conducting a review would be contrary to legal requirements.

(ii) Reasons why auditors cannot give absolute assurance:

1. Audits are not always objective and they involve judgment and so cannot be absolute.
2. Financial statements contain accounting estimates which require judgment so there is no precise way of determining such accounting estimates.
3. Auditors do not test all transactions and balances in the financial statements and there is a risk that undetected misstatements do exist.
4. Internal controls put in place by management to prevent and help detect fraud and error may fail resulting in the existence of uncorrected misstatements.
5. Audit reports are issued sometime after the period end and the position at the period end is likely to be different to that at the time of issuing the audit report.

SOLUTION TWO

(a) Sampling and non-sampling risks:

Sampling risk – This is the risk that the auditors will reach an inappropriate conclusion because they based the conclusions on results of sample tests. Had the whole population been tested a different conclusion could have been reached.

Non sampling risk – This is the risk that the auditors may reach an inappropriate conclusion based on other reasons other than sampling. For example, the audit team members may not have the necessary skills and competences to identify material misstatements that may exist.

(b) Procedures for identifying subsequent events:

1. Inquire from management on the procedure for determining subsequent events.
2. Find out the status of amounts for subjective judgments made at the period end. For example, to find out the status of the outcome of the court case that commenced before the period end.
3. Seek the opinion of legal representatives of Giraffe Ltd on the status of the litigation against the company.
4. Obtain written representations from management acknowledging that all events occurring subsequent to the period end which need adjustment or disclosure have been adjusted or disclosed.

(c) Written representations at the final stage of the audit:

There are auditing standards that require specific written representations to be obtained from management toward the end of the audit. In the case of the audit of the financial statements of Giraffe Ltd the auditors will request for the following written representations:

- That management is of the view that the effects of uncorrected misstatements are immaterial both individually and in aggregate according to ISA 450 *Evaluation of misstatements identified during the audit.*
- Written representations should be obtained from management regarding its assessment that the company is a going concern. This is not withstanding the likely outcome of the legal case against the company.
- We should obtain written representations on the correctness of inventory valuation and the adequacy of the provisions made.

(d) Suggestion of suitable audit opinion:

The amount of K1.1million in relation to uncorrected misstatements is material to the financial statements considering the materiality level of K1.5million used in the audit of the financial statements of Giraffe Ltd. Since management has declined to amend the financial statements on account of the uncorrected misstatements this will have an impact on the audit opinion that will be reached.

The pervasiveness of the uncorrected misstatements will be the basis of determining the form of modification that should be used and this could be any of the following situations:

- If the matter is not considered pervasive to the financial statements, then a qualified opinion will be appropriate.
- If on the other hand the matter is considered pervasive to the financial statements, then an adverse audit opinion will be appropriate.

SOLUTION THREE

(a) Rights of statutory auditors:

1. The right of access at reasonable times to a client company accounting records and other records needed for the audit.
2. The auditors have the right to attend any general meeting called by the company and to receive notice of such meetings.
3. The right to speak and be heard at the general meeting.
4. The auditors have a right to information and explanations from the company's officers as they deem necessary to perform their duty.

(b) Control activities and suitable control activities:

	Control activity	**Test of control**
1	There should be segregation of duties between Chief Cashier and the person responsible for petty cash.	Observe that there is the necessary segregation of duties.
2	Petty cash should be kept separately from the sales proceeds. Possibly a separate cash box should be used for petty cash.	Confirm by observation that petty cash is kept separately and not mixed with sales proceeds.
3	Petty cash vouchers should be pre-numbered or numbered using a numbering machine when used as a control.	Confirm through inspection that the petty cash vouchers are numbered.
4	Petty cash vouchers must be authorized by a responsible official and not only signed by the recipients of the money.	For a sample of petty cash vouchers confirm through inspection that they have been authorized appropriately.
5	Petty cash should be counted by a responsible official and the amount agreed with the balance in the petty cash book. The counting should be evidenced in writing (signed).	Inspect evidence of petty cash counts and confirm they are evidenced in writing by inspecting the petty cash count records.
6	Petty cash reimbursement should be authorized by a responsible official who should check the supporting documents and agree the re-imbursement amount to the value of the supporting petty cash vouchers.	For a sample of reimbursements made during the period, confirm by inspection that they have been duly authorized by a responsible official.
7	The supporting documents to all petty cash payments should be stamped with a PAID stamp to avoid the same documents being used fraudulently.	For a sample of payments out of petty cash, inspect and confirm the supporting documents have been duly stamped with a PAID stamp.

(c) (i) Substantive audit procedures for accounts payables:

	Substantive audit procedures	Related assertion
1	Cast the schedule of accounts payable for arithmetic accuracy.	Accuracy
2	Confirm that the total on the receivables schedule agrees with the balance on payables control account	Completeness
3	For a sample of payables transactions inspect the supporting documents and confirm relate to goods or services received in the period.	Cut off
4	Review supplier reconciliations for a sample of accounts payables.	Accuracy and rights and obligations
5	Select a sample of payables and perform a third party confirmation if reconciliations not adequate to provide the necessary assurance.	Rights and obligations, completeness, cut off and accuracy.
6	For a sample of payables confirm post year payments made to balances at the period end.	Accuracy

(ii) Substantive audit procedures for accruals:

	Substantive audit procedures
1	Determine the make-up of the accrual between water and electricity.
2	Inquire from management on the basis of determining the accrual amounts- review assumption used for reasonableness
3	Examine prior year accruals and compare with actual payments to assess management's ability to make accruals.
4	Examine post year payment for related amount and make adjustments if necessary.
5	Obtain written representations from management concerning the accruals made.

SOLUTION FOUR

(a) Factors to consider prior to accepting the audit

1. Qualification to act as auditors legally and professionally.
2. Conflict of interest with existing clients. If issues arise, then their significance must be considered.
3. Competent, experience and skills to perform the work.
4. Resources availability – Staff, time, money, etc.
5. Reputation and integrity of the directors of the client.
6. Expected audit fee should adequate in relation to the risk of auditing.
7. Communicate with the outgoing auditor of Client to assess if there are any ethical or professional reasons why they should not accept appointment.
8. They should obtain permission from Client's management to contact the existing auditor; if this is not given, then the engagement should be refused.

(b) Factors which influence the reliability of audit evidence

1. Evidence obtained from independent sources is more reliable.
2. Internally generated evidence more reliable when the controls are effective.
3. Evidence obtained directly by the auditor is more reliable than evidence obtained others.
4. Evidence in documentary form is more reliable than evidence obtained orally.
5. Evidence provided by original documents is more reliable than evidence provided by copies.

(c) Potential indicators that Chuma Co is NOT a going concern

1. Significant customers have experienced a fall in sales, and have purchased fewer items. There is a risk profits and future cash flows will reduce.
2. 25 suppliers have withdrawn credit terms meaning the company must pay cash on delivery. This puts additional pressure on the company's cash flow.
3. 10 of the main suppliers is threatening legal action to recover the debts owing. There is a risk of occurring legal costs.
4. The company's current ratio has fallen below 1 to 0·5. This indicates worsening liquidity position.
5. Cash flow forecast for the next 12 months shows net cash outflows. The risk that cash may run out.
6. Change in legislation which will result in 3 of its top product lines becoming obsolete.

(d) Audit procedures on Going concern

1. Discuss with management the basis for their going concern review/assessment
2. Review the cash flow forecast and review the cash in and outflows.
3. Assess the assumptions for reasonableness and discuss the findings with management.
4. Review post year-end correspondence with suppliers to identify if any others have threatened legal action or refused to supply goods.
5. Evaluate management's plans for future actions, including their contingency plans.
6. Enquire of the lawyers of Chuma as to the existence of any additional litigation.
7. Review recent financial statements to assess it profitability and debt position.
8. Review the approved budgets and future plans of the company.
9. Discuss with management if they have other sources of finances or guarantor(s).
10. Review the recent management accounts and obtain management representations.

SOLUTION FIVE

(a) Difference between a review and audit of financial statements:
Reviews are an alternative to audits where an audit is not required by law. They are a cost effective alternative to audits and the procedures used in a review do not provide all the evidence that would be required in an audit. Reviews give rise to a lower level of assurance where the auditor considers whether anything has come to the auditor's attention that causes the auditor to believe that the financial statements are not prepared in all material respects, in accordance with an applicable financial reporting framework. A review gives rise to a limited assurance.

An audit on the other hand is designed to give a high level of assurance and involves a high degree of testing and therefore cost. An audit gives rise to a reasonable assurance. In the case of the audit of the financial statements of Kangaroo Plc., a review of the financial statements as suggested by some board members will not be appropriate. Kangaroo Plc. is a listed company and is required by law to have its financial statements audited by external auditors.

(b) (i) The role of management and the board in running the affairs of Kangaroo Plc.:
Management is responsible for the day to day running of the company and is responsible for putting in place suitable and relevant controls to help detect and prevent fraud and error. Management prepares financial statements which form the link between it and the shareholders and show the performance of the company.

The board of directors gives oversight on management on how management has fulfilled its mandate of running the company. There are decisions that require board approval before the can be implemented by management. The board reviews the financial statements before they are finalized.

(ii) Roles of non-executive directors in Kangaroo Plc.:

1. To bring to bear their independence and objectivity in dealing with matters related to the company in board meetings.
2. Non-executive directors will comprise the Audit Committee of the company which has an important role in dealing with the financial statements of the company.
3. Non-executive directors will also take the role of being in the remuneration committee of the company which sets the remuneration of the executive directors.
4. The non-executive directors will also have an important role in the nomination of directors and also the appointment of the external auditors.
5. A non-executive director could be appointed as a senior independent director who will be available to shareholders in they have any matters of concern.

(c) (i) Suitable audit opinion for the audit of Kangaroo Plc.:
The fact that the auditors have obtained sufficient appropriate audit evidence and concluded that there are no matters of concern that materially affect the financial statements suggests that the financial statements were prepared in accordance with the applicable financial reporting framework. In this case the suitable audit

opinion is an unmodified opinion in accordance with ISA 700 *Forming an opinion and reporting on financial statements.*

(ii) Suggestion to include matter in the emphasis of matter paragraph:
ISA 706 *Emphasis of matter paragraphs and other matter paragraphs in the independent auditor's report* gives guidance on the use of these paragraphs.

The suggestion by the Audit Senior to include the fact that previous year financial statements were audited by different auditors in the emphasis of matter paragraph is not correct. The emphasis of matter paragraph is used for matters that are correctly accounted for and included in the financial statements.

The fact that the previous year financial statements were audited by different auditors can be included in the other matter paragraph which is used for other matters not included in the financial statements.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA APPLICATION ADVANCED DIPLOMA IN ACCOUNTANCY

CA 2.4: TAXATION

THURSDAY 12 DECEMBER 2024

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
K0.01 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

K0.01 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	10%
On income from mineral processing	30%
On income from mining operations	30%
On income of Banks and other Financial Institutions	30%

Mineral Royalty

Mineral Royalty on Copper

Norm price range per tonne	Incremental value	Mineral Royalty rate
Less than US$4,000	First $3,999	4.0% of norm value
From US$4,000 but less than US$5,000	Next $1,000	6.5% of norm value
From US$5,000 but less than US$7,000	Next $2,000	8.5% of norm value
US$7,000 and above	Over $7,000	10% of norm value

Mineral Royalty on other minerals

Type of mineral	Mineral Royalty Rate
Cobalt and Vanadium	8% of norm value
Base Metals (Other than Copper, Cobalt and Vanadium)	5% of norm value
Energy and Industrial Minerals	5% of gross value
Gemstones	6% of gross value
Precious Metals	6% of norm value

Capital Allowances

Implements, plant and machinery and commercial vehicles:

Wear and Tear Allowance –	Standard wear and tear allowance	25%
	Used in manufacturing and leasing	50%
	Used in farming and agro-processing	100%
	Used in mining operations	20%

Non- commercial vehicles

Wear and Tear Allowance	20%

Industrial Buildings:

Wear and Tear Allowance	5%
Initial Allowance	10%
Investment Allowance	10%

Low Cost Housing	**(Cost up to K100,000)**
Wear and Tear Allowance	10%
Initial Allowance	10%

Commercial Buildings	
Wear and Tear Allowance	2%

Farming Allowances	
Development Allowance	10%
Farm Works Allowance	100%
Farm Improvement Allowance	100%

Presumptive Taxes

Turnover Tax

Annual Turnover	
K0.01 to K12,000	0%
K12,001 to K800,000	4%

Rental income Tax

Rental income band	**Taxable amount**	
K0.01 to K12,000	First K12,000	0%
K12,001 to K800,000	Next K788,000	4%
On income above K800,000		12.5%

Presumptive tax for transporters

Seating capacity	**Tax per annum**	**Tax per quarter**
	K	K
Less than 12 passengers and taxis	1,080	270
From 12 to 17 passengers	2,160	540
From 18 to 21 passengers	4,320	1,080
From 22 to 35 passengers	6,480	1,620
From 36 to 49 passengers	8,640	2,160
From 50 to 63 passengers	10,800	2,700
From 64 passengers and over	12,960	3,240

Property transfer tax

Rate of tax on realised value of land (including buildings, structures or improvements thereon)	5%
Rate on realised value of intellectual property	5%
Rate on realised value of mining right for an exploration licence	5%
Rate of tax on realised value of a mining right for a mining licence	10%
Rate of tax on realised value on a mineral processing licence	10%

Value Added Tax

Registration threshold	K800,000
Standard Value Added Tax Rate (on VAT exclusive turnover)	16%

Customs and Excise duties on used motor vehicles

	Aged 2 to 5 years		Aged above 5 years	
Motor vehicles for the transport of ten or more persons, including the driver	**Customs duty K**	**Excise duty K**	**Customs duty K**	**Excise duty K**
Sitting capacity of 10 but not exceeding 14 persons including the driver	17,778	22,223	8,889	11,112
Sitting capacity exceeding 14 but not exceeding 32 persons	38,924	0	13,840	0
Sitting capacity of 33 but not exceeding 44 persons	86,497	0	19,462	0
Sitting capacity exceeding 44 persons	108,121	0	43,248	0

	Aged 2 to 5 years		Aged above 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	12,490	10,824	7,136	6,185
Cylinder capacity exceeding 1000 cc but not exceeding 1500 cc	16,058	13,917	8,564	7,422
Cylinder capacity exceeding 1500 cc but not exceeding 2500 cc	16,545	21,508	8,423	10,950
Cylinder capacity exceeding 2500 cc but not exceeding 3000 cc	18,049	23,463	10,528	13,687
Cylinder capacity exceeding 3000 cc	22,561	29,329	12,032	15,642
Hatchbacks				
cylinder capacity not exceeding 1000 cc	10,705	9,278	7,136	6,185
Cylinder capacity exceeding 1000 cc but not exceeding 1500 cc	14,274	12,371	8,564	7,422
Cylinder capacity exceeding 1500 cc but not exceeding 2500 cc	15,041	19,553	8,423	10,950
Cylinder capacity exceeding 2500 cc but not exceeding 3000 cc	16,545	21,508	10,523	13,687
Cylinder capacity exceeding 3000 cc	19,553	25,419	12,032	15,642
Station wagons				
cylinder capacity not exceeding 2500 cc	16,545	21,508	9,024	11,731
Cylinder capacity exceeding 2500 cc but not exceeding 3000 cc	18,049	23,463	13,357	17,598
Cylinder capacity exceeding 3000 cc	22,561	29,329	18,049	23,463
SUVs				
Cylinder capacity not exceeding 2500 cc	21,057	27,374	9,024	11,732

Cylinder capacity exceeding 2500 cc but not exceeding 3000 cc	24,065	31,284	13,357	17,598
Cylinder capacity exceeding 3000 cc	28,577	37,150	18,049	23,463
	Aged 2 to 5 years		**Aged above 5 years**	
Motor vehicles for the transport of goods - with compression-ignition internal combustion piston engine (diesel or semi-diesel):	**Customs duty**	**Excise duty**	**Customs duty**	**Excise duty**
	K	**K**	**K**	**K**
Single cab				
GVW exceeding 1.0 tonne but not exceeding 1.5 tonnes	21,926	9,501	8,770	3,801
GVW exceeding 1.5 tonnes but not exceeding 3.0 tonnes	26,311	11,402	15,348	6,651
GVW exceeding 3.0 tonnes but not exceeding 5.0 tonnes	30,697	13,302	17,541	7,601
Double cabs				
GVW exceeding 3 tonnes but not exceeding 5 tonnes	30,697	13,302	24,119	10,452
Double cabs GVW exceeding 3.0 tonnes but not exceeding 5.0 tonnes, **with spark ignition internal combustion piston engine**	33,766	14,632	26,531	11,497
Panel Vans				
GVW not exceeding 1.0 tonne	13,353	5,786	7,630	3,061
GVW exceeding 1.0 tonne but not exceeding 1.5 tonnes	15,348	6,651	8,770	3,801
GVW exceeding 1.5 tonnes but not exceeding 3.0 tonnes	17,541	7,601	15,348	6,651
GVW exceeding 3.0 tonnes but not exceeding 5.0 tonnes	21,926	9,501	17,541	7,601
Trucks				
GVW up to 2 tonnes	13,907	10,662	6,413	4,916
GVW exceeding 2.0 tonnes but not exceeding 5.0 tonnes	15,453	11,847	7,726	5,923
GVW exceeding 5.0 tonnes but not exceeding 10.0 tonnes	24,724	18,955	9,272	7,108
GVW exceeding 10.0 tonnes but not exceeding 20.0 tonnes	30,905	23,694	11,744	9,004
GVW exceeding 20 tonnes	51,898	0	19,462	0
GVW exceeding 20 tonnes, **with spark ignition internal combustion piston engine**	37,086	28,432	13,907	10,662

Surtax

On all motor vehicles aged more than five (5) years from year of manufacture K2,000

Customs and Excise on New Motor vehicles

Duty rates on:

1. Motor cars and other motor vehicles (including station wagons) principally designed for the transport of less than ten persons, including the driver:

Customs Duty:	
Percentage of Value for Duty Purposes	30%
Minimum Specific Customs Duty	K6,000
Excise Duty:	
Percentage of Value for Duty Purposes for Excise Duty Purposes	
Cylinder capacity of 1500 cc and less	20%
Cylinder Capacity of more than 1500 cc	30%

2. Pick-ups and trucks/lorries with gross weight not exceeding 20 tones:

Customs Duty	
Percentage of Value for Duty Purposes	15%
Minimum specific Customs Duty	K6,000
Excise Duty:	
Percentage of Value for Duty Purposes for Excise Duty Purposes	10%

3. Buses/coaches for the transport of more than ten persons

Customs Duty:	
Percentage of Value for Duty Purposes	15%
Minimum Specific Customs Duty	K6,000
Excise Duty:	
Percentage of Value for Duty Purposes for Excise Duty Purposes	
Seating Capacity of 16 persons and less	25%
Seating Capacity of 16 persons and more	0%

4. **Trucks/lorries with gross weight exceeding 20 tonnes**

Customs Duty:	
Percentage of Value for Duty Purposes	15%
Excise Duty:	
Percentage of Value for Duty Purposes for Excise Duty Purposes	0%

SECTION A

This question is compulsory and must be attempted.

QUESTION ONE - (COMPULSORY)

Ikelenge plc is a Zambian resident company engaged in manufacturing. For the year ended 31 December 2024, the company submitted both the return of provisional income and the self-assessment returns on the appropriate due dates.

The statement of profit or loss for the company for the year ended 31 December 2024, shows a loss for the year of K2,353,700. The loss for the year was arrived at after taking into account the following items:

(1) Staff costs which included wages for casual workers of K1,186,800, employee's salaries of K126,800,300, director's emoluments of K35,600,400, labour day awards of K650,000, security guard's uniforms of K325,600, skills development levy of K817,936, employer's NHIMA contributions of K25,738, employer's NAPSA contributions of K8,179,400. Director's emoluments include the annual salary of K1,440,000 for the company's Chief Executive Officer who is accommodated in a company owned house for which he does not pay any rent

(2) Legal and professional fees which included fees paid to the following firms:

	K
Illondola Associates for trade debt collection	156,300
MMK & Associates for land surveying & conveyancing	252,700
Astute Legal Practitioners for legal services	189,000
Mwila Practitioners for building valuations	155,000
Cipex Chartered Accountants for Audit fees	295,000
	1,048,000

(3) Expenses relating to gifts, hospitality and entertainment, which included, staff refreshments of K94,500, hospitality expenses for customers of K123,400, entertainment expenses for the board members amounting to K125,800, end of year party for employees of K110,300, gifts of the company's branded coffee mugs to customers valued at K120 per customer totalling K240,000 and donation of food and clothing to the less privileged in the local community valued at K550 per recipient totalling K825,000.

(4) Irrecoverable debt expenses comprising the following items:

	K
Trade debts written off	615,400
Loans to employees written off	347,600
Increase in specific allowance for receivables	136,500)
Decrease in general allowance for receivables	(142,400)

Loans previously written off recovered	(126,700)
	830,400

(5) General operating expenses include insurance of business assets of K256,000, Lusaka City Council levies of K16,200, fees for renewal of trading license of K17,500, provisional income tax paid during the year of K1,167,500, theft of cash by the company's cashiers of K440,000, depreciation charges of K12,686,000, loss on disposal of office equipment of K24,600, penalties levied for non-compliance with health and safety regulations of K2,125,500 and miscellaneous allowable operating expenses of K16,544,300.

(6) Other income credited to the accounts which included management fees of K1,827,500 (net), dividends of K1,360,000 (net), GRZ Bond interest of K1,530,000 (net), profit on sale of Scania delivery truck of K160,500. Withholding tax were applicable was deducted at source and paid on the appropriate due date.

Additional information

(i) **Buildings**

On 1 March 2024 the company completed the construction of a building at a cost of K25,000,000 which was brought into use immediately. The building comprised the following items:

	K
Land	5,000,000
Staff canteen	1,400,000
Showroom	1,800,000
Factory unit	15,200,000
Administration offices	1,600,000
	25,000,000

(ii) **Implements, plant and machinery**

On 1 January 2024, the company held the following implements, plant and machinery which were acquired at the following costs and brought into use on the following dates:

Date	Asset	Original cost K
10 March 2021	Scania Delivery Truck	1,380,000
20 April 2022	Office equipment	928,000
16 October 2022	General plant and equipment	2,580,000

During the year ended 31 December 2024, the following purchases and disposals of assets took place:

Date		Cost/(Proceeds) K
5 January 2024	Purchased Toyota LandCruiser-LC300 VX SUV	1,860,000
5 January 2024	Purchased Isuzu Double Cab Van- DMax	1,270,000
20 June 2024	Purchased new manufacturing equipment	1,044,000
15 August 2024	Sold the Scania delivery truck	(1,420,000)
15 August 2024	Sold office equipment	(404,000)
10 Sept 2024	Purchased pool motor cars (2,400cc)	2,560,000

The Toyota Land Cruiser Sport Utility Vehicle (SUV) is used by the Chief Executive Officer on a personal-to-holder basis and has cylinder capacity of 4000cc, whilst the Isuzu Double cab van is used by the Chief Finance Officer on a personal-to-holder basis and has a cylinder capacity of 2700cc. Each executive had business use of 65% in each vehicle during the tax year 2024.

Required:

(a) Explain the differences between the return of provisional income and the self-assessment income tax return and state the dates when Ikelenge plc is required to submit each of these returns in respect of the tax year 2024. (4 marks)

(b) Calculate the maximum capital allowances claimable by Ikelenge Plc on the following assets held in the tax year 2024:

(i) The capital allowances on buildings. (6 marks)

(ii) The capital allowances on implements, plant and machinery. (10 marks)

(c) Compute the final taxable business profit after capital allowances for Ikelenge Plc for the tax year 2024. (14 marks)

(d) Compute the income tax payable by the company for the charge year 2024. (6 marks)

[Total: 40 Marks]

SECTION B

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

QUESTION TWO

James Malama, has ran a farming business for many years generating annual turnover which is above K800,000 and preparing accounts annually to 31 March. However, financial results in recent years have been poor. Therefore, after preparing accounts for the year ended 31 March 2023, he decided to cease trading on 31 July 2024, making a final tax adjusted farming profit for this period of K160,000.

On 1 August 2024, he took up employment as an agronomist at an annual salary of K234,000. He was also entitled to transport allowance of 5% of his annual basic salary and lunch allowance of 2% of his basic salary. The company leased a house on his behalf paying lease rentals of K5,000 per month, during the period of his employment in the tax year 2024. Upon completion of his probation 1 November 2024, he was awarded a salary increment of 10% of his annual basic salary, effective from that date.

Other benefits he received during his period of employment in the tax year 2024 included:

(1) Payment of utility bills by the company in connection with his accommodation amounting to K2,200 per month.
(2) Salary advance of K24,000 on 1 August 2024, to be repayable in six equal instalments, with the first instalment being deducted on 31 August 2024.
(3) Reimbursement of medical expenses amounting to K12,500 incurred in September 2024, for the medical treatment of his sick son.
(4) Funeral grant of K15,000 cash towards the funeral costs of his late father who passed away in the village in November 2024.

Other Income

In the tax year 2024, Malama received the following additional income:

	K
GRZ Bond interest	10,625
Copyright Royalties	32,300
Betting and gaming winnings	7,225
Fixed deposit interest	14,000

The above amounts represent the actual cash received. Withholding tax had been deducted and paid at source where appropriate.

The following payments and deductions were made from his employment earnings during the tax year 2024:

- PAYE deducted from his earnings for the year amounted to K22,892.
- Employee's NHIMA contributions of K492 per month.
- Employee's NAPSA contributions of K1,491 per month.
- College fees for his children amounting to K18,000.
- Trade union contributions K500 per month.

- Tithes amounting to K26,500 to Living Hope Bible Church an approved public benefit organisation.

Required:

(a) Explain how the basis period for the final period of trading in relation to his farming business will be determined and state the tax year(s) in which profits he made in the final period will be assessed. (5 marks)

(b) Compute the amount of the final income tax payable by Malama for the charge year 2024. You should indicate using a zero (0) all employment benefits received by Malama that are exempt from tax. (15 marks)

[Total: 20 Marks]

QUESTION THREE

You are employed in a firm of Chartered Accountants and you have been assigned to deal with the tax affairs of your client, Mubanga. The following information has been provided to you:
In January 2024, Mubanga purchased a second hand 2490cc Toyota Mark-X sedan car from Japan at a price of US$4,177. The vehicle was manufactured in January 2008. The charge for insurance was US$800 and freight up to the port of Dare salaam was $2,700, where clearing and forwarding costs of US$500 were incurred. He further incurred incidental costs of transporting the vehicle from the Nakonde border post to Lusaka amounting to $1,200. In Lusaka, Interpol clearance fee was K250, vehicle registration fees were K3,000 comprehensive motor car insurance costs were K10,000 and Road tax was K350.

The exchange rate provided by the Commissioner General at the time of importation of the vehicle was K26.50 per US$. However, the exchange rates quoted in a local Bureau De Change was K26.55 per US$.

During the year Mubanga additionally entered into the following transactions:

(1) On 15 February 2024, he purchased six (6) acres of land for K350,000. He additionally incurred legal fee of K10,500 in transferring title to the land.

(2) On 10 March 2024, he sold copyrights for a book he published some years ago to an unconnected third party for K180,000. The value of the copy rights as determined by the Commissioner General was K210,000.

(3) On 15 March 2024, he sold 10,000, K2 ordinary shares he held in NCL plc, a company listed on the LuSE at K7.25 per share being the price at which each share was trading on that date. He acquired each share ten years ago at a price of K2.50 per share.

(4) On 30 June 2024, he sold a residential house to his son at a discounted price of K15,000. He bought the house ten years ago at a cost of K120,000. On 30 June 2024 the house had a market value of K400,000.

(5) On 4 July 2024, he sold an artisanal mining licence for emeralds which he was granted three years ago receiving proceeds K900,000 from the sale. The value of the mining rights as determined by the Commissioner General on that date was K950,000.

(6) On 10 July 2024, he sold a Toyota Allion Car for cash proceeds of K85,000 to an unconnected person. The open market value of the car on the date of sale was K75,000.

Required:

(a) State four (4) conditions that must be met for the transaction value method to be used to determine the value for the customs duty purposes on imported goods. (4 marks)

(b) Compute the Customs Value (Value for Duty Purposes) of the Toyota Mark X Sedan car and the total import taxes paid by Mubanga on the importation of the car. (7 marks)

(c) Explain the Property Transfer Tax implications of each of the transactions (1) to (6) above entered into by Mubanga in the tax year 2024. Your answer should include calculations of the amount of Property Transfer Tax arising where applicable. (9 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, Mwenge Lubasi.

Mwenge, a sole trader, is a Zambian resident entrepreneur running a chain of retail outlets across Lusaka District. Her annual turnover has always exceeded K800,000. During the year ended 31 December 2024, she computed provisional income tax amounting to K430,460 which was paid correctly on the appropriate due dates. Her actual taxable business profit for the year ended 31 December 2024 amounted to K1,888,000. This profit was after all necessary tax adjustments and capital allowances.

She has informed you that she is currently facing liquidity problems, and as a result she will only manage to pay the balance of income tax payable for the tax year 2024 on 21 August 2025 on which date the self-assessment income tax return for the tax year 2024 will also be submitted. She has further informed you that, as part of her strategy to reduce her income tax liability, she will be treating her nominal salary as an allowable deduction when computing the taxable business profits. She is not sure whether this action may constitute tax evasion.

You should assume that the Bank of Zambia discount rate is 11.5% per annum.

Required:

(a) Explain the meaning of tax evasion and state any four (4) practices that may constitute tax evasion. (5 marks)

(b) Explain how the fundamental principles of integrity and confidentiality applies in the provision of tax services. (4 marks)

(c) Calculate the amount of actual income tax payable for the tax year 2024. (4 marks)

(d) Calculate the amount of penalties and interest payable by Mwenge for late payment of income tax and late submission of self-assessment income tax return for the tax year 2024. (7 marks)

[Total: 20 Marks]

QUESTION FIVE

You are employed in a firm of Chartered Accountants. Your firm is dealing with the tax affairs of Conja Limited, a VAT registered trading company. You are helping the company in preparing the VAT return for the month of February 2024. The directors have heard that a business can only recover input VAT incurred on expenses if it meets certain conditions.

You have been provided with the following information relating to the month of February 2024:

(1) Sales invoices totalling K3,870,000 were issued to customers out of which exempt sales were K657,000 and zero-rated sales were K480,000 with the remainder of the sales being standard rated.

(2) Standard rated purchases were K980,000 and the purchase returns on these purchase amounted to K124,500, whilst zero rated purchases were K310,000 and exempt purchases K355,000.

(3) Standard rated expenses amounted to K269,700 (VAT inclusive) broken down as follows:

	K
Entertaining customers	52,200
Staff meals and refreshments	55,680
Petrol for company cars	69,600
Diesel for motor vans	60,900
Telephone bills	31,320
	269,700

(4) The company wrote off a bad debt amounting to K39,000 during the month of February 2024, in respect of a debt which was due for payment on 30 September 2022.

(5) The company bought the following capital assets at the following VAT inclusive costs:

	K
Pool motor car	261,000
Delivery van	208,800
Personal to holder car	104,400

All capital assets are used to make both taxable and exempt supplies in proportion of sales.

(6) All the above figures are VAT exclusive unless stated otherwise.

Required:

(a) State any three (3) conditions that should be met for input VAT to be claimed by the business. (3 marks)

(b) Compute the amount of VAT payable for the month of February 2024. You should indicate in your computation using a zero (0) for all items on which VAT is not chargeable or irrecoverable. (14 marks)

(c) State the due date for payment of the VAT you have computed in (b) above and the consequences of paying the VAT late. (3 marks)

[Total: 20 Marks]

END OF PAPER

CA2.4 TAXATION SUGGESTED SOLUTIONS

SOLUTION ONE

(a) RETURN OF PROVISIONAL INCOME

(1) The return of provisional income is completed by a taxpayer at the start of a tax year.
(2) The return contains an estimate of the taxable income for the tax year to which the return relates as well as an estimate of income tax on that taxable income. This tax computed on the estimated income is known as provisional income tax.
(3) The return of provisional income should be submitted to the Commissioner General not later than 31 March in the tax year to which it relates. In this case Ikelenge plc should have submitted their returns by 31 March 2024.
(4) In the case of a person who registers for income tax after 31 March of any charge year the due date for filing a provisional return shall be 90 days from the date of registration for income tax.

SELF-ASSESSMENT INCOME TAX RETURN

(1) The self-assessment return is filled in at the end of the tax year.
(2) This return must contain the actual amounts of income received from all the sources and a computation of income tax payable thereon.
(3) It also shows any balance of income tax payable after deducting the taxes already paid including the provisional income tax during the tax year.
(4) The self-assessment income tax return must be submitted to the Commissioner General by 21 June following the end of the tax year to which the return relates.

In the case Ikelenge plc the return should be submit by 21 June 2025:

(b) (i) COMPUTATION OF THE QUALIFYING COST FOR IBA PURPOSES

	K
Total cost	25,000,000
Less cost of land	(5,000,000)
	20,000,000
10% of K20,000,000	2,000,000

The total cost of the non-qualifying part, comprising the showroom and administration of K3,400,000 (K1,800,000 + K1,600,000) is more than K2,000,000. Therefore, they will be classified as commercial buildings and not as industrial buildings.

COMPUTATION OF ALLOWANCES ON BUILDINGS

	Allowance K
Staff canteen	
Wear and tear allowance	
(K1,400,000 x 5%)	70,000
Initial allowance	
(K1,400,000 x 10%)	140,000
Investment allowance	
(K1,400,000 x 10%)	140,000
Showroom	
Wear and tear allowance	
(K1,800,000 x 2%)	36,000
Factory	
Wear and tear allowance	
(K15,200,000 x 5%)	760,000
Initial allowance	
(K15,200,000 x 10%)	1,520,000
Investment allowance	
(K15,200,000 x 10%)	1,520,000
Administration offices	
Wear and tear allowance	
(K1,600,000 x 2%)	32,000
Total allowances	4,218,000

(b) (ii) COMPUTATION OF CAPITAL ALLOWANCES ON IMPLEMENTS. PLANT AND MACHINERY

	K	K
Scania		
Cost	1,380,000	
Less total allowances (K1,380,000 x 25%) x 3yrs	(1,035,000)	
ITV b/f (i.e.K1,380,000 x 25%)	345,000	
Proceeds restricted to cost	1,380,000	
Balancing charge	(1,035,000)	(1,035,000)
Office equipment		
Cost	928,000	
Less total allowances (K928,000 x 25%) x 2yrs	(464,000)	
ITV b/f (i.e. K928,000 x 50%)	464,000	

Proceeds	404,000	
Balancing allowance	60,000	60,000
General plant & equipment		
Wear & tear allowance		
(K2,580,000 x 25%)		645,000
Toyota Land cruiser SUV		
Wear & tear allowance		
(K1,860,000 x 20%)		372,000
Toyota Isuzu double cab Van		
Wear & tear allowance		
(K1,270,000 x 20%)		254,000
Manufacturing equipment		
Wear & tear allowance		
(K1,044,000 x 50%)		522,000
Pool motor cars		
Wear & tear allowance		
(K2,560,000 x 20%)		512,000
		1,330,000

(c) COMPUTATION OF TAXABLE PROFITS

	K	K
Loss as per accounts		(2,353,700)
Add		
Accommodation benefit		
(K1,440,000 x 37.5%)	540,000	
Fees for land surveying & conveyancing	252,700	
Fees for building valuations	155,000	
Staff refreshments	94,500	
Customer hospitality	123,400	
Gifts of coffee mugs (240,000/120 x K20)	40,000	
Donations of food	825,000	
Loans to employees written off	347,600	

Provisional income tax	1,167,500	
Depreciation	12,686,000	
Loss on disposal of equipment	24,600	
Penalties for non-compliance with laws	2,125,500	
Personal to holder motor car benefit		
-Toyota Land cruiser SUV	48,000	
-Isuzu double cab van	36,000	
		18,465,800
		16,112,100
Less		
Decrease in general allowance for receivables	142,400	
Loans previously written off recovered	126,700	
Management fees	1,827,500	
Dividends	1,360,000	
GRZ bond interest	1,530,000	
Profit on Scania delivery truck	160,500	
Capital allowances on buildings	4,218,000	
Capital allowances on IPMs	1,330,000	
		10,695,100
Final taxable business profit		5,417,000

(d) IKELENGE PLC
COMPANY INCOME TAX COMPUTATION FOR THE TAX YEAR 2024

	K
Taxable business profit	5,417,000
Investment income	
Management fees (K1,827,500 x100/85)	2,150,000
GRZ bond interest (K1,530,000 x 100/85)	1,800,000
Taxable income	9,367,000
Company income Tax	
(K9,367,000 x 30%)	2,810,100
Less tax already paid	
WHT on Management fees (K2,150,000 x 15%)	(322,500)

WHT on GRZ bond interest (K1,800,000 x 15%)	(270,000)
Provisional income Tax	(1,167,500)
Final income tax payable	1,050,100

SOLUTION TWO

(a) Basis of Assessment

(1) Cessation rules will be used to determine when profits he made in the final period of trading will be assessed. Since the final period of account is more than twelve months long being 16 months long (from 1 April 2023 to 31 July 2024). The period will be split into two notional accounting periods for tax purposes as follows:

(i) The first period should consist of exactly 12 months ending on the normal accounting date and this will be the 12-month period from 1 April 2023 to 31 March 2024.
(ii) The second period should consist of less than 12 months, ending on the date of cessation and this will be the four-month period from 1 April 2024 to 31 July 2024.

(2) The profits for the whole period of K160,000 will then be allocated to the two notional accounting periods on a time basis. This will result in the

(i) Profits of K120,000 (K160,000 x 12/16) being allocated to the first period; and

(ii) Profits amounting to K40,000 (K160,000 x 4/16) being allocated to the second period.

(3) Thereafter, the normal rules should be applied to determine the tax year in which the profits of the first accounting period should be assessed. Since the first notional accounting period is ending on 31 March 2024, the preceding year basis of assessment will be used and profits for this period amounting to K120,000 will be assessed in the tax year 2023.

(4) Profits for the second notional accounting period are then assessed in the year following tax year 2023. This means the profits of K40,000 will be assessed in the tax year 2024.

(5) The basis of assessment can alternatively be shown as follows:

Tax Year	Basis Period	Taxable Profits
		K
2023	01.04.2023 – 31.03.2024	K160,000 x 12/16 =K120,000
2024	01.04.2024 -31.07.2024	K160,000 x 4/16 =K40,000

(b) JAMES MALAMA

PERSONAL INCOME TAX COMPUTATION FOR THE TAX YEAR 2024

	K	K
Taxable farming profits		40,000
Employment income		
Basic s salary (K234,000 x 3/12) + (K234,000 x110% x 2/12)	101,400	
Transport allowance (K100,900 x 5%)	5,070	
Lunch allowance (K100,900 x 2%)	2,028	
Lease rentals (K5,000 x 5)	25,000	
Utility expenses (K2,200 x 5)	11,000	
Salary Advance	0	
Medical expenses	0	
Funeral Grant	0	
	144,498	
Less allowable deductions		

Donation to approved PBO	(26,500)	
Taxable employment income	117,998	
Investment/Other income		
Royalties (K32,300 x 100/85)	38,000	
Total non-farming income		155,998
Total taxable income		195,998
Income Tax on non-farming income		
On first K61,200 x 0%		0
On next K24,000 x 20%		2,400
On nextK25,200 x 30%		7,560
On excess (K155,463 - K110,400) x 37%		16,871
		26,831
Tax on farming profits (K40,000 x10%)		4,000
Tax liability		30,831
Less tax already paid		
WHT on Royalties (K38,000 x15%)		(5,700)
Income tax paid under PAYE		(22,892)
Income Tax payable		2,239

SOLUTION THREE

(a) The following are the conditions that should be met:

(1) There should be no restrictions to the use of the goods.
(2) There should be no conditions to deter determination of the VDP.
(3) No part of the proceeds on resale would accrue to the seller, unless included in the value.
(4) No relationship exists to influence the value.

(b) COMPUTATION OF VDP

	$
Purchase price	4,177
Insurance	800
Freight charges	2,700
Clearing & forwarding	500
VDP in US$	8,177
Exchange rate	x 26.50
VDP in ZMW	216,691

COMPUTATION OF IMPORT TAXES

	K	K
Value for duty purposes	216,691	
Specific Customs Duty	8,423	8,423
	225,114	
Specific Excise Duty	10,950	10,950
VDP for import VAT	236,064	
Import VAT @16%	37,770	37,770
	273,834	
Surtax Charge	2,000	2,000
Total value	275,834	
Total import taxes		59,143

(c) The Property Transfer Tax implications are as follows:

(1) The purchase of land does not result in a liability to Property Transfer Tax. This is because Mubanga is a buyer of the shares. Property Transfer tax is paid by the seller (The transferor) of property.

(2) The sale of copyrights will constitutes a transfer of property with a realized value K210,000 being the higher of the actual proceeds K180,000 and the value determined by the Commissioner General K210,000.

Property Transfer Tax paid:

5% x K210,000 = K10,500

(3) The sale of shares in a company listed on the LuSE is exempt from PTT. Therefore, there will be no PTT on the sale of shares in NCL plc.

(4) The sale of the house by Mubanga to his son is a transfer of property to an immediate family and as such it will have a realised value that is equal to the actual consideration received of K15,000.

Property Transfer Tax paid

5% x K15,000 = K750

(5) The sale of an artisanal mining licence will constitutes a transfer of property with a realized value K950,000 being the higher of the actual proceeds K900,000 and the value determined by the Commissioner General of K950,000.

Property Transfer Tax on Mining rights is at the rate of 10% and this will amount to:

10% x K950,000 = K95,000

(6) 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.

SOLUTION FOUR

(a) Tax evasion involves the tax payer using illegal means to reduce their tax liabilities.

The practices that may constitute tax evasion include:

(1) Deliberate concealment of income, including overstatement of tax credits or exemptions and suppression of profits. This results in the disclosure of income which is not the actual income earned by the taxpayer.
(2) Deliberate misrepresentation of material fact, manipulation of accounts, disclosure of unreal expenses for deductions, showing personal expenditure as business expenses.
(3) Hiding relevant documents.
(4) Not maintain complete records of all the transactions.
(5) Not reporting taxes such as VAT, PAYE and withholding tax. These taxes are collected from others by the taxpayer and held in trust by the business, to be reported and paid to ZRA.

(b) Integrity
Members shall be straightforward and honest in all professional and business relationships. The principles of honesty and integrity impose an obligation on the practitioner to ensure straightforwardness, fair dealing, a commitment not to mislead or deceive and truthfulness.

This means that a member providing taxation services must not knowingly be associated with reports, returns, communications or other information where the member believes that the information contains a materially false or misleading statement or calculation or statements or information furnished recklessly.

Confidentiality
The principle of confidentiality states that members should not disclose any 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.

This means that the member providing tax services should not disclose any information obtained when performing the duties for the clients 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 your own personal advantage of the professional accountant or third parties.

(c) Mwenge
Income tax payable for the tax year 2024

	K
Taxable business profits	1,888,000
Computation	
First K61,200 @0%	0
Next K24,000 @20%	4,800
Next K25,200 @30%	7,560
Excess (K1,888,000 – K110,400) @37%	657,712
Income tax liability	670,072
Less:	
Provisional income tax paid	(430,460)
Income tax payable	239,612

(d) Penalties
Late payment of tax
The final amount of income tax for the tax year 2024 should have been paid not later than 21 June 2025. Therefore, if the tax is paid on 21 August 2025, Mwenge will delay to pay the tax by 2 months (or 61 days).

The penalty will therefore be: K239,612 x 5% x 2 months = K23,961.

Interest on overdue tax is also charged at a rate of 2% plus the Bank of Zambia discount rate. I.e. K239,612 x (11.5% + 2%) x 2/12 = K5,391.

Late submission of self-assessment income tax return
The self-assessment income tax return should have been submitted not later than 21 June 2025. If the return is submitted on 21 August 2025, the return will be submitted late by 2 months (or 61 days).

The penalty for late submission of the return is 1000 penalty units or K300 per month or part thereof. The penalty will therefore be: 1000 units x 2 months = 2000 penalty units or K300 x 2 months = K600.

SOLUTION FIVE

(a) The following are the conditions to be met for input VAT to be claimed by the business:

(1) The input VAT should have been incurred to make a taxable supply.
(2) The trader making the claim should have been registered for VAT at the time the input VAT was incurred.
(3) The input VAT should have been incurred for business purposes.
(4) The input VAT should be one that is accurately calculated.
(5) The input VAT should be supported by evidence. i.e. the tax invoice showing the amount of input VAT paid.
(6) The input VAT should one that is recoverable

(b) COMPUTATION OF VAT PAYABLE FOR THE MONTH OF FEBRUARY 2024

Output VAT	K	K
Exempt sales		0
Zero rated sales (K657,000 x 0%)		0
Standard rated sales		
(K3,870,000 – K657,000 – K480,000) x 16%		437,280
		437,280
Input VAT		
Standard rated purchases (K980,000 x 16%)	156,800	
Purchases returns (K124,500 x 16%)	(19,920)	
Exempt purchases	0	
Zero rated purchases	0	
Diesel (K60,900 x 4/29) x 90% x 83%	6,275	
Entertaining customers	0	
Staff meals and refreshments	0	
Petrol for company cars	0	
Telephone bills	0	
Irrecoverable debts written off	0	
Pool car	0	
Personal to holder car	0	
Delivery van (K208,800 x 4/29) x 83%	23,904	
		(167,059)
VAT payable		270,221

Workings

Recoverable non-attributable input VAT

$\frac{\text{Taxable supplies}}{\text{Total supplies}} \times 100$

$\frac{K3,213,000}{K3,870,000} \times 100$

= 83%

(c) The amount of VAT calculated in part (b) above should be paid not later than 18 March 2024. The following are the consequences if the VAT is paid later than 18 March 2024:

(1) The company will be charged a daily penalty of 0.5% of the amount of VAT payable

(2) Interest on overdue tax will be charged at a rate of 2% plus the Bank of Zambia discount rate.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA APPLICATION ADVANCED DIPLOMA IN ACCOUNTANCY

CA2.5: FINANCIAL MANAGEMENT

FRIDAY 13 DECEMBER 2024

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

INSTRUCTIONS TO CANDIDATES

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

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

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

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

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

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

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

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

8. Present legible and tidy work.

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

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

SECTION A

This question is Compulsory and must be attempted.

<u>QUESTION ONE</u> – (COMPULSORY)

Power Plc manufactures soft drinks for the domestic market within the country. It operates in an area where there are high unemployment levels and national development agencies have interest in it. It is considering closing one of its factories and laying off the factory employees due to poor financial performance as a result of the declining economic growth and demand. However, if the company acquires a modern new machine, the factory could remain open.

Power Plc is considering whether to buy the new machine at a cost of K1.1 million or alternatively to lease it for K450,000 p.a. (lease payments payable at the start of each year). If the company buys the machine, it would only employ 50% of the factory employees. However, the redundancy costs and the personnel costs if the employees continue is almost the same as the difference is insignificant.

Buying the new machine will involve borrowing money at a pre-tax interest cost of 10% p.a. If the machine is bought, it will be bought on the last day of the current financial year. The machine has a life span of four (4) years, and (if purchased) will have a scrap value after four (4) years of K100,000. Power Plc pays corporate tax one (1) year in arrears at an annual rate of 30%. The new equipment attracts capital allowances at the rate of 25% on a reducing balance basis.

Besides the declining economic growth and demand, the other reason for the poor financial performance was poor working capital management, especially inventory and receivables. Power Plc does not have a policy on how many units of inventory to order and the cost of inventory. It imports its raw materials from a neighbouring country. Power Plc has an annual demand for 40,000 units of raw materials from the factory in question and the purchase price of each unit is $25. There are ordering costs of $20 for each order placed. Inventory holding costs amount to 10% per year of inventory value. The forecast annual exchange rate is ZMW/$ 27.12 - 27.87.

Required:

(a) Evaluate whether Power Plc should lease or purchase the new machine. (18 marks)

(b) Discuss other factors that the directors might take into account before making a final decision of whether to invest in the machine or not. (8 marks)

(c) Calculate the Economic Order Quantity. (4 marks)

(d) Calculate the total inventory costs in the local currency based on the economic order quantity. (10 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt any THREE (3) questions.

QUESTION TWO

The following summarised statement of financial position relates to Sumo Bank Plc, a company listed on a large stock market which pays corporation tax at the rate of 30%.

	K'million	**K'million**
Equity and liabilities:		
Share capital	17	
Retained earnings	15	
Total equity		**32**
Non-current liabilities, Long-term borrowings	13	
Current liabilities	21	
Total liabilities		34
Total equity and liabilities		**66**

The share capital of Sumo Bank Plc consists of K12 million ordinary shares and K5 million, 5% irredeemable preference shares. The ordinary shares of Sumo Bank Plc have a nominal value of K0.50 per share, an ex-div market price of K7.07 per share and a cum-div market price of K7.52 per share. The dividend for 2023 will be paid in the near future.Dividends paid in recent years have been as follows:

Year	**2022**	**2021**	**2020**	**2019**
Dividend (K/share)	0.43	0.41	0.39	0.37

The 5% preference shares of Sumo Bank Plc have a nominal value of K0.50 per share and an ex dividend market price of K0.31 per share.

The long-term borrowings of Sumo Bank Plc consist of K10 million loan notes and a

K3 million bank loan. The bank loan has a fixed interest rate of 7.7% per year.

The 7% loan notes have a nominal value of K100 per loan note and a market price of K102.34 per loan note. Annual interest has just been paid and the loan notes are redeemable in four (4) years' time at a 5% premium to nominal value.

During a recent management meeting the Director of Finance of Sumo Bank Plc expressed concern about the bank's relationship with various stakeholders and explained that more efforts need to be made to encourage stakeholders to achieve organisational objectives. He explained that the bank's stakeholders should be analyzed into three categories. They should be analyzed as internal, external or connected stakeholders. Furthermore, she observed that reward schemes were cardinal in the achievement of organisational objectives.

Required:

(a) Calculate the after-tax weighted average cost of capital of Sumo Plc on a market value basis. (10 marks)

(b) Explain the nature of internal, external and connected stakeholders giving examples of each category. (5 marks)

(c) Explain any five (5) challenges associated with the use of reward schemes in the achievement of organisational objectives. (5 marks)

[Total: 20 Marks]

QUESTION THREE

JB Plc has in issue 7% convertible bonds with K100 nominal value. These bonds can be converted into 20 ordinary shares in four years' time. The price of the shares is currently at K5.00 each and the share price is expected to grow at 6% per year in the foreseeable future. The minimum rate of return required by the debtholders is 8%.

Required:

(a) Explain the advantages and disadvantages of using a cash flow based model to value shares. (6 marks)

(b) Calculate the current market value of the convertible bond. (6 marks)

(c) Calculate the current conversion value. (3 marks)

(d) Determine the conversion premium and comment on its meaning. (5 marks)

[Total: 20 Marks]

QUESTION FOUR

Kamwala WholeSalers Ltd currently has income of K30 million per year, of which 80% is from credit sales. It has a net profit margin of 10%. Due to fierce competition, Kamwala WholeSalers Ltd has lost market share and is looking for ways to win back former customers and to keep the loyalty of existing customers. The sales director has pointed out that a major competitor of Kamwala WholeSalers Ltd currently offers an early settlement discount of 0.5% for settlement within 30 days, while Kamwala WholeSalers Ltd itself does not offer an early settlement discount. He suggests that if Kamwala WholeSalers Ltd could match this early settlement discount, annual income from credit sales would increase by 20%.

Credit customers of Kamwala WholeSalers Ltd take an average of 51 days to settle invoices. Approximately 0.5% of the company's credit sales have historically become bad debts each year and written off as irrecoverable. The Finance Director has been advised that offering an early settlement discount of 0.5% for payment within 30 days would increase administration costs by K35,000 per year, while 75% of credit customers would be likely to take the discount. The credit controller believes that bad debts would fall to 0.375% of credit sales if the early settlement discount were introduced.

Kamwala WholeSalers Ltd has an average short-term cost of finance of 4% per year. Assume that there are 360 days in each year.

Required:

(a) Evaluate whether Kamwala WholeSalers Ltd should introduce the early settlement discount.

Note: Quantification of the net profit increase, reductions in bad debts, receivables, financing costs, and discount costs are required. (10 marks)

(b) Discuss two (2) ways in which the company could reduce the risk associated with foreign accounts receivable. (4 marks)

(c) Discuss the reasons why investment finance may be limited, even when a company has attractive investment opportunities available to it. (6 marks)

[Total: 20 Marks]

QUESTION FIVE

BJP Plc is considering investing in a business project to expand on its revenue stream. The project has an asset beta (β) of 0.89, which is significantly different from the business risk characteristics of BJP Plc's current operations. The project is expected to be financed by 70% equity and 30% debt. BJP Plc issued 8% irredeemable, K100 debentures quoted at 90 percent ex int. The project requires an outlay of K780,000 and is expected to generate annual returns of K185,000 in perpetuity. The market return is 16.5% and the risk free rate is 7.5%. However, BJP Plc management is concerned with the barriers to entry in the industry where the project would be undertaken. Annual corporate tax is 25%.

Required:

(a) Calculate the minimum return that BJP Plc will require from the project. (7 marks)

(b) Evaluate the project using the Net Present Value Method and advise BJP Plc management whether or not the project is worthwhile. (5 marks)

(c) Discuss the possible barriers to entry in the new industry that BJP Plc might encounter. (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

SOLUTION ONE

a)

Capital allowances (if bought):

				Tax saved
Year 0	Cost	1,100,000		
	C.A.	275,000	× 30% =	82,500
		825,000		
Year 1	C.A.	(206,250)	× 30% =	61,875
		618,750		
Year 2	C.A.	(154,687.5)	× 30% =	46,406.25
		464,062.5		
Year 3	C.A.	(116,015.63)	× 30% =	34,804.69
		348,046.88		
Year 4	Scrap	100,000	× 30% =	74,414.06
	C.A.	248,046.88		

After tax cost of borrowing = 10% x (1-0.3) = 7%

Cash flows: BUY

	0	1	2	3	4	5
Cost	**(1,100,000)**					
Scrap					**100,000**	
Tax saved on CA's	**-**	**82,500**	**61,875**	**46,406.25**	**34,804.69**	**74,414.62**
Net cash flow	**-**	**82,500**	**61,875**	**46,406.25**	**134,804.69**	**74,414.62**
Discount@ 7%	**1.000**	**0.935**	**0.873**	**0.816**	**0.763**	**0.713**
P.V.	**(1,100,000)**	**77,137.5**	**5 4,016.88**	**37,867.5**	**102,855.98**	**53,057.62**

NPV = (775,064.52)

Cash flows: LEASE

Year	0	1	2	3	4	5
Lease	**(450,000)**	**(450,000)**	**(450,000)**	**(450,000)**		
Tax saved			**135,000**	**135,000**	**135,000**	**135,000**
Net cash flow	**(450,000)**	**(450,000)**	**(315,000)**	**(315,000)**	**135,000**	**135,000**
Discount@7%	**1**	**0.935**	**0.873**	**0.816**	**0.763**	**0.713**
P.V.	**(450,000)**	**(420,750)**	**(274,995)**	**(257,040)**	**103,005**	**96,255**
NPV = (1,203,525)						

The decision should therefore be to buy the machine.

b) Other factors that may influence the decision include:

i) The overall strategy of the business. The business may need to set the decision within a broader context. It may be necessary to lease the machine at the factory to avoid redundancies in an area of high unemployment for as long as possible.

ii) Flexibility. A decision to close the factory is probably irreversible. If the factory continues, however, there may be a chance that the prospects for the factory will brighten in the future.

iii) Accuracy of forecasts. The forecasts made by the business should be examined carefully. Inaccuracies in the forecasts or any underlying assumptions may change the expected outcomes.

iv) Financing: The company can consider engaging the national development agencies for a subsidised loan which can bring the cost of borrowing down.

C) Inventory Management

$$\text{E.O.Q.} = \sqrt{\frac{2 \times 20 \times 40{,}000}{2.50}} = 800\,\text{units}$$

d)

Number of orders = Annual demand/EOQ

= 40,000/800

=50

Average Inventory = EOQ/2

= 800/2

= 400

Reorder cost p.a = No. of order x cost per order

= 50 x $20

= $1,000

Inventory Holding costs = Inventory value x 10%

= (400 x $25) x 10%

=$1,000

Total Inventory Cost = $2,000

Total inventory Cost in Kwacha= $2,000 x 27.87

=K55,740

SOLUTION TWO

a) WACC

(a) Cost of equity	
Cum div share price (K per share)	7.52
Ex div share price (K per share)	7.07
Dividend for 2023 (K per share)	0.45
Dividend for 2019 (K per share)	0.37
Dividend growth rate (%)	[(0.45/0.37)0.25 – 1] 5.02
Cost of equity (%)	[((0.45 x 1.05)/7.07) + 0.05] 11.7
Cost of preference shares	
Nominal value (K per share)	0.50
Market price (K per share)	0.31
Dividend rate (%)	5
Cost of preference shares (%)	[(0.5 x 0.05)/0.31] 8.06
Interest rate of loan notes (%)	7
Nominal value of loan notes (K)	100.00
Market price of loan notes (K)	102.34
Time to redemption (years)	4
Redemption premium (%)	5
Tax rate (%)	30

Year	**Item**	**K**	**5% DF**	**PV (K)**	**6% DF**	**PV (K)**
0	MV	(102.34)	1.000	(102.34)	1.000	(102.34)
1 – 4	Interest	4.90	3.546	17.38	3.465	16.98
4	Redeem	105.00	0.823	86.42	0.792	83.16
				1.46		(2.20)

IRR (%) = (5 + (1.46/(1.46+ 2.20)) = <u>5.40%</u>

Cost of bank loan (%) = 7.7(1-0.30) = 5.39%   Use cost of loan notes as a proxy value.

Market values and WACC calculation:

	BV (K'000)	Nominal	MV	MV (K'000)	Cost (%)	WACC
Ordinary shares	12,000	0.50	7.07	169,680	11.70	10.67
Preference shares	5,000	0.50	0.31	3,100	8.06	0.13
Loan notes	10,000	100.00	102.34	10,234	5.40	0.30
Bank loan	3,000			3,000	5.39	0.09
				186,014		11.19

b STAKEHOLDERS

1) INTERNAL.
   These include employees and managers.
2) CONNECTED.
   These include shareholders, customers, bankers and suppliers.
3) EXTERNAL.
   These include Government, pressure groups, local communities and professional bodies.

c) **Challenges associated with reward schemes**

i) Performance related pay and performance evaluation systems can encourage dysfubctional behavious. Many investigations have noted the tendency of managers to inflate their budgets either in anticipation of cuts by superiors or to make subsequent variances more favourable.

ii) Some managers may make decisions that are contrary to the wider purposes of the organisation.

iii) Schemes designed to ensure long-term investments may not motivate since efforts and rewards are too distant in time from each.

iv)Self- interested performance may be encouraged at the expense of teamwork.

v)High levels of output may be achieved at the expense of quality.

vi)In order to make bonuses more accessible, standards and targets may have to be lowered, with knock –on effects on quality.

vii) They undervalue intrinsic rewards given that they promote extrinsic rewards (bonuses and so on)

viii) Performance measures may not provide a comprehensive assessment of what a single person achieves for an organisation.

SOLUTION THREE

a) Three (3) Advantages and disadvantages of cash flow based method.

Advantages of cash flow based method

1. Includes all major assumptions about the business.

2. Does not require any comparable companies.

3. Includes all future expectations about a business

4. Extremely detailed.

Disadvantages of cash flow based method

1. It requires a range number of assumptions

2. Very sensitive to changes in assumptions

3. A high level of detailed may result in overconfidence

4. prone to over complexity.

b)

Interest = 7% x K100 = k7

CV = K5(1.06)^4 X 20 = K126.25

Years	Narration	cashflows	DC@8%	PV
1-4	Interest	7	3.312	23.18
4	CV	126.25	0.763	96.33
			Market price (Po) =	119.51

c) Current conversion value = K5 X 20 shares

= K100

d)

Conversion premium = market price – current conversion value

Conversion premium =K119.51 – K100

= K19.51

The share price would have to rise by K19.51 before the conversion rights became attractive.

SOLUTION FOUR

(a) Current credit sales income = K30,000,000 x 0.8 = K24,000,000

Credit sales income after introducing discount = K24,000,000 x 1.2 = K28,800,000

Increase in income by introducing discount = K24,000,000 x 0.2 = K4,800,000

Increase in net profit (profit before interest and tax) = K4,800,000 x 0.1 = K480,000

Current level of bad debts = K24,000,000 x 0.005 = K120,000 per year

Revised level of bad debts = K28,800,000 x 0.00375 = K108,000 per year

This would be a benefit of K120,000 – K108,000 = K12,000 per year

Reduction In Trade Receivables	K'000
Trade receivables taking discount = K28,800,000 x 0.75 x 30/360 =	1,800
Trade receivables not taking discount = K28,800,000 x 0.25 x 51/360 =	1,020
Revised level of trade receivables	2,820
Current trade receivables = K24,000,000 x 51/360 =	3,400
Reduction in trade receivables	580

Summary Table	K	K
Benefits		
Reduction in financing costs = 580,000 x 0.04 =	23,200	
Increase in net profit =	480,000	
Reduction in bad debts =	12,000	
		515,200
Costs		
Increase in administration costs	35,000	
Cost of discount = K28,800,000 x 0.005 x 0.75 =	108,000	
		143,000
Net benefit of proposed early settlement discount =		372,200

(b) Company could reduce the risk associated with foreign accounts receivable, such as export credit risk, by reducing the level of investment in them, for example, by using bills of exchange.

If payment by the foreign customer is linked to bills of exchange, these can either be discounted or negotiated by a company with its bank. Discounting means that the trade bills (term bills) are sold to the bank at a discount to their face value. The company gets cash when the bills are discounted, thereby decreasing the outstanding level of trade receivables. Negotiation means that the bank makes an advance of cash to the company, with the debt being settled when the bills of exchange (sight bills) are paid.

Advances against collection means that the bank handling the collection of payment on behalf of the selling company could be prepared to make a cash advance of up to 90% of the face value of the payment instrument, for example, bills of exchange. Again, this would reduce the level of investment in foreign accounts receivable.

The risk of non-payment by foreign accounts receivable can be reduced by raising an international letter of credit (documentary credit) linked to the contract for the sale of goods. This could be confirmed (guaranteed) by a bank in the foreign customer's country.

The exporting company could also arrange for export credit insurance (export credit cover) against the risk of non-payment, which could occur for reasons outside the control of the foreign customer.

The risk of foreign accounts receivable becoming bad debts can be reduced by performing the same creditworthiness assessment processes on foreign credit customers as those used with domestic credit customers, such as seeking credit references and bank references.

Note: *Only TWO methods are required to be discussed.*

(c)

Theoretically, a company should invest in all projects with a positive net present value in order to maximise shareholder wealth. If a company has attractive investment opportunities available to it, with positive net present values, it will not be able to maximise shareholder wealth if it does not invest in them, for example, because investment finance is limited or rationed.

If investment finance is limited for reasons outside a company, it is called 'hard capital rationing'. This may arise because a company is seen as too risky by potential investors, for example, because its level of gearing is so high that it is believed it may struggle to deliver adequate returns on invested funds. Hard capital rationing could also arise if a company wants to raise debt finance for investment purposes, but lacks sufficient assets to offer as security, leading again to a risk-related problem.

During a time of financial crisis, investors may seek to reduce risk by limiting the amount of funds they are prepared to invest and by choosing to invest only in low-risk projects. It is also true to say that companies could struggle to secure investment when the capital markets are depressed, or when economic prospects are poor, for example, during a recession.

If investment funds are limited for reasons within a company, the term 'soft capital rationing' is used. Investing in all projects with a positive net present value could mean that a company increases in size quite dramatically, which incumbent managers and directors may wish to avoid in favour of a strategy of controlled growth, limiting the investment finance available as a consequence. Managers and directors may limit investment finance in order to avoid some consequences of external financing, such as an increased commitment to fixed interest payments if new debt finance were raised, or potential dilution of earnings per share if new equity finance were raised, whether from existing or new shareholders.

Investment finance may also be limited internally in order to require investment projects to compete with each other for funds. Only robust investment projects will gain access to funds, it is argued, while marginal projects with low net present values will be rejected. In this way, companies can increase the likelihood of taking on investment projects which will actually produce positive net present values when they are undertaken, reducing the uncertainty associated with making investment decisions based on financial forecasts.

SOLUTION FIVE

a) **Weighted Average Cost of Capital**

Ba=Be x Ve/Ve+Vd(1-t)

0.89=Be x 0.7/0.7+0.3(1-0.25)

Be=1.18

Cost of equity= 7.5% +1.18(16.5%-7.5%)

= 18.12%

Cost of debt = $\frac{8(1-0.25)}{90}$ x 100%= 6.67%

WACC= (18.12% x 0.7) + (6.67% x 0.3)

= 14.685% round off to 15%

b) **Financial Evaluation using NPV**

After tax annual return = K185,000 x (1-0.25)	= K138,750
Present value of cash flows = K138,750/0.14685	= K944,906.02
Less: Initial cost of investment	= (K780,000)
Net Present Value	**K164,906.02**

The project should be accepted because it gives a positive NPV meaning the wealth of the shareholders would be increased by this amount.

c) The threat of new entrants (and barriers to entry to keep them out)

A new entrant into an industry will bring extra capacity and more competition (and so could, in turn, drive down profits). The strength of this threat is likely to vary from industry to industry and depends on two things.

The strength of the barriers to entry. Barriers to entry discourage new entrants.

The likely response of existing competitors to the new entrant.

The barriers to entry include:

1) Scale economies. High fixed costs often imply a high breakeven point, and a high breakeven point depends on a large volume of sales. If the market as a whole is not growing, the new entrant has to capture a large slice of the market from existing competitors.
2) Product differentiation. Existing firms in an industry may have built up a good brand image and strong customer loyalty over a long period of time. A few firms may promote a large number of brands to crowd out the competition.
3) Capital requirements. When capital investment requirements are high, the barrier against new entrants will be strong, particularly when the investment would possibly be high-risk.
4) Knowledge requirements. As well as high capital requirements, knowledge and know-how are also a barrier to entry. It is much more difficult to enter an industry which requires significant specialist knowledge, and skills, than an industry where no specialist skills are required.
5) Switching costs. Switching costs refer to the costs (time, money, convenience) that a customer would have to incur by switching from one supplier's products to another's. Although it might cost a consumer nothing to switch from one brand of frozen peas to another, the potential costs for the retailer or distributor might be high.
6) Access to distribution channels. Distribution channels carry a manufacturer's products to the end-buyer. New distribution channels are difficult to establish, and existing distribution channels hard to gain access to.
7) Cost advantages of existing producers, independent of economies of scale include:
    i. Patent rights
    ii. Experience and know-how
    iii. Government subsidies and regulations
    iv. Favoured access to raw materials

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA APPLICATION ADVANCED DIPLOMA IN ACCOUNTANCY

CA 2.6 STRATEGIC BUSINESS ANALYSIS

WEDNESDAY 11 DECEMBER 2024

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

INSTRUCTIONS TO CANDIDATES

1. You have fifteen (15) minutes reading time. Use it to study the examination paper carefully so that you understand what to do in each question.
2. This paper is divided into TWO sections:

   Section A: One (1) compulsory scenario question.

   Section B: Four (4) Optional scenario Questions. Attempt any three (3) questions.
3. Enter your student number and your National Registration Card number on the front of the answer booklet. Your name must **NOT** appear anywhere on your answer booklet.
4. **Do NOT** write in pencil (except for graphs and diagrams).
5. **Cell Phones** are **NOT** allowed in the Examination Room.
6. The marks shown against the requirement(s) for each question should be taken as an indication of the expected length and depth of the answer.
7. All workings must be done in the answer booklet.
8. Present legible and tidy work.
9. Graph paper (if required) is provided at the end of the answer booklet.

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

SECTION A

This question is compulsory and must be attempted.

<u>QUESTION ONE</u> – (COMPULSORY)

The Case of Strategic Analysis of Google Inc.

Google incorporated in 1998 has become a global giant search engine with its headquarters based in Mountain View, CA, with various office locations around the world. Executives and a Board of Directors (BoD) manage the company. Its growth has been catapulted by its rapid innovations including wireless search technologies, search capabilities in more than ten languages, and the Google Toolbar browser plug-in that made it possible for users to enjoy the Internet search service without first visiting a Google-affiliated web portal.

Additional products by the end of 2004 included Google News, Google Product search, Google Local, and the Google Scholar. Additionally, Google's web pages' index increased to eight billion besides its country domains reaching one hundred and fifty by the year ending 2004. The most historical success story of the Google Inc. was recorded on the first day of public offering. At the end of its first day of trading, the company's shares appreciated by 18% making the two co-founders over $3.8 billion richer. At this time, its workforce had expanded reaching over 900 employees each approximately worth $1 million.

The Google Inc. has not restricted its services to the Internet search technology only. Since 2005, the company has introduced numerous products through its robust innovations and the vast financial reserves. Through various strategic acquisitions, it developed new Internet applications to provide advertising opportunities that underpin the giant's enormous success today. Notably, the acquisition of Keyhole, which was a digital mapping company, enabled the launching of the Google earth in 2005.

Additionally, Google acquired the Motorola Mobility for $12.5 billion in 2012. This acquisition placed the company in the hardware market offering competition to the Apple Inc. Having launched the Android operating system in 2008, venturing into the hardware segment will promote the integration of the software as seen in companies such as the Apple Inc. In 2007, Google maps were enhanced when the company added street-view images taken by traveling Google camera cars.

The technological strategy enabled users to link digital images, webcam feds, and videos to locations displayed by the Google maps software. Additionally, the company made it possible to link real estate listings and short personal messages to the Google Maps locations. The Google Maps received a major enhancement in 2010 when the earth-view mode was included allowing users to view 3D images of different locations from the ground level.

Google strategy included dominating the Internet advertising and became the world's leading search engine. In light of this strategy it enabled online ads with more than 41 languages around the world. As a result, a half of its 2012 revenues came outside the United States. In 2013, the company strategy focused on venturing into emerging markets including Russia and China.

Entering the largest emerging market, China, faced tough challenges. The greatest threat in China was stiff competition from local search providers such as Baidu. Second, tough Government's requirements that included censoring search results. Disagreements with the Government saw Google controlling only 3% of the Chinese market.

Market development was a key intensive strategy for Google Inc. In the US, the company adopts the intensive strategy for the Google Fiber product and cable television. This approach had worked for the company in various states including Kansas, Missouri, Texas, and Utah. The market development plan will leverage the launch of fiber product and cable television in additional states and abroad. The Google Inc.'s robust marketing mix had largely leveraged its success. The giant search engine has developed numerous products including the Google Glass and Google Fiber. The company's marketing mix embraces varied approaches to suit its diversified products.

Adopted from: https://ivypanda.com/essays/the-case-of-strategic-analysis-of-google-inc/

Required:

(a) Discuss the 'SWOT' analysis for Google Inc. (12 marks)

(b) Analyze the competition of this industry using the appropriate model. (12 marks)

(c) Discuss four (4) primary marketing mix strategies adopted by Google. (12 marks)

(d) Critique four (4) potential risks associated with implementing a product-market growth strategy. (4 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this Section.

Attempt any THREE (3) questions.

QUESTION TWO

Mansa Mineral Resources Limited in Luapula Province of Zambia is a company that has been mining manganese originally as main suppliers of the mineral as raw materials to Mansa batteries Company for manufacturing of radio and other types of cell batteries. The company had seen its business go down with the collapse of its business when the economy of the country was liberalized but continued operating on a smaller scale. However, the company identified other opportunities in mining of a new mineral called sugilite whose deposit is very large in the area. The company, upon the advice of mineral experts and consultants has decided to operate the new venture as parallel structure with existing one. A new mineral project headed by the Consultant employed as the Mineral Development Manager with seconded supporting staff to him who also reports to their functional managers. This structure is commonly known as a Matrix organization.

Required:

(a) Provide an argument of five (5) reasons against the use of matrix organization by Mansa Mineral Resources Limited. (10 marks)

(b) Criticize the matrix form of organization on two (2) ethical challenges advanced by classical theorists on this structure. (2 marks)

(c) If Mansa Mineral Resources management transformed itself into a holding company and opted to have Manganese Division and a Sugilite Division, conclude any four (4) inherent problems this divisionalization strategy would bring to the company. (8 marks)

[Total: 20 Marks]

QUESTION THREE

A group pf young people have come together and formed an NGO for youths. It is aimed at solving psychosocial problems affecting the youths in their community. They have approached you to help them develop a Strategic Plan. This is your first consultative meeting with them to help them understand what exactly is needed.

Required:

Discuss the significance of the following in strategic management:

(a) The Product Life Cycle (5 marks)

(b) Risk management (5 marks)

(c) The balanced scorecard (5 marks)

(d) Scenario planning (5 marks)

[Total: 20 Marks]

QUESTION FOUR

Quench Beverages Limited produces a diverse range of products including soft drinks, juices, and energy drinks. The company operates in the very competitive beverage industry. In response to market dynamics, Quench Beverages Limited employs the three (3) generic competitive strategies to position itself strategically.

Required

(a) Evaluate conceptual difficulties underlying the pursuit of the three (3) generic competitive strategies. (15 marks)

(b) Explain five (5) ways in which collaboration may be a valid strategic option.

(5 marks)

[Total: 20 Marks]

QUESTION FIVE

(a) Organizations must formulate strategic plans and then business plans to guide their operations. Strategic plans and business plans are crucial tools for organizations, serving different purposes but often interconnected. Together, they help organizations navigate the dynamic business environment.

Required:

Discuss four (4) purposes and uses of the following:

(i) Strategic plan (4 marks)

(ii) Business plan (4 marks)

(b) Cloud Pulse Technologies is an IT company which is constantly innovating and launching new products. The company is expanding at a fast rate and the management recognizes the importance of control processes to maintain quality, efficiency, and overall effectiveness as there are several other players in the industry offering IT solutions.

Required:

Recommend four (4) categories of input control processes management may consider to get things done. (8 marks)

(c) A network organization structure is one that emphasizes collaboration, communication, and flexibility.

Required:

Outline four (4) examples of network organization structures as suggested by Johnson et al (2005). (4 marks)

[Total: 20 Marks]

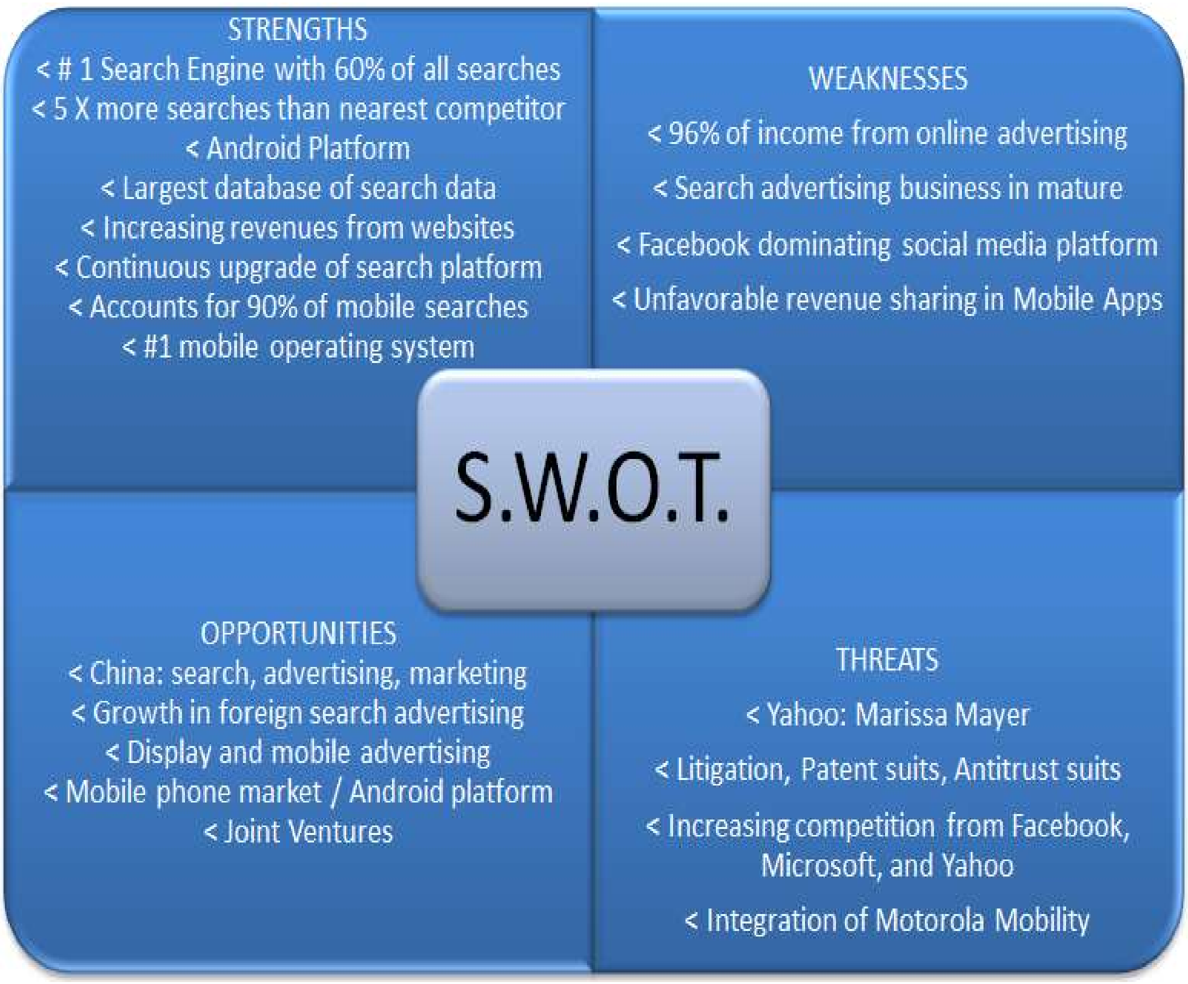
END OF PAPER

CA2.6 STRATEGIC BUSINESS ANALYSIS SUGGESTED SOLUTIONS

SOLUTON ONE

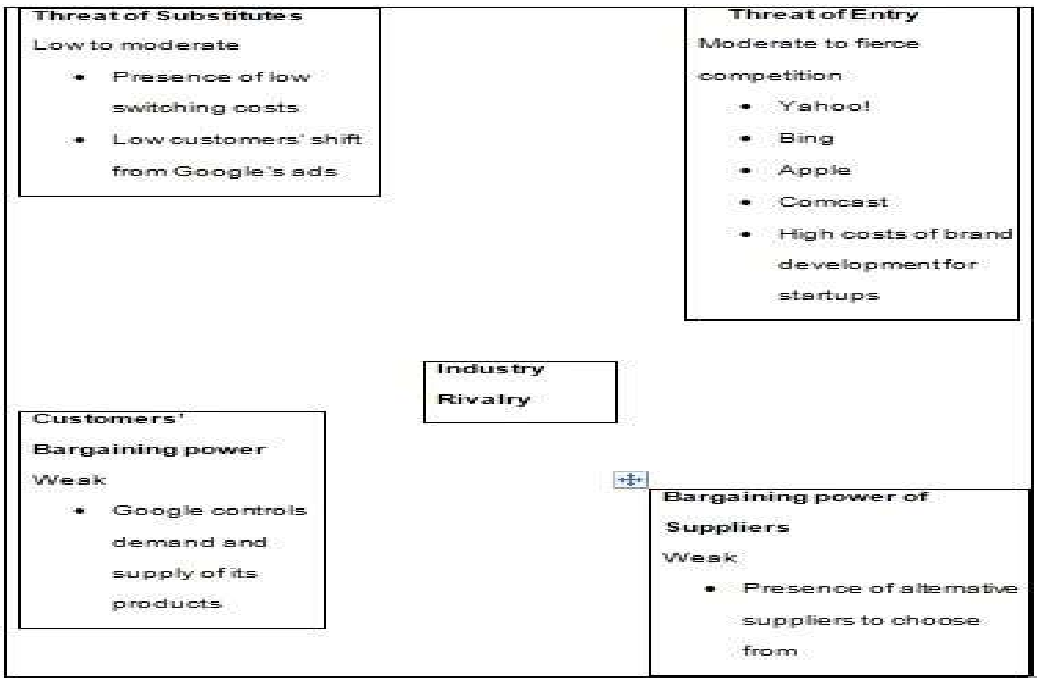
a) Discuss the 'SWOT' analysis for Google Inc.

The 'SWOT' analysis is a method used to evaluate the strengths, weaknesses, opportunities and threats involved in an organization (Gürel and Tat, 2017). For an organization to record a high performance, it must capitalize its strengths, improve its weaknesses, monitor its opportunities and eliminate its threats.



B: Identify and analyze an industry's business competitive structure using the appropriate model.

Porter's Five Forces Model



C: Discuss some of the marketing mix strategies adopted by Google,

Google's Marketing Mix

C) Johnson, Scholes & Whittington suggested two main principles and guidelines for product-market panning. Discuss four potential risks associated with implementing a product-market growth strategy.

- Market risk- when a firm enters a new market it will face competition from the exiting firms
- Product risk- New products risks being rejected and the costs may be high before realizing the positive retains
- Managerial risk- management may not be able to run and turnaround the new product effectively
- Financial risk- Cash flow from the new product is usually volatile and there can be need to raise more cash to support the new product.

SOLUTION TWO

(a) The matrix form of organisation structure that Mansa Mineral Resources Limited wish to change to has the following disadvantages:

(i) Dual authority threatens a conflict between managers. Where a matrix structure exists, it is important that the authority of superiors should not overlap and areas of authority must be clearly defined. A subordinate must know to which superior they are responsible for each aspect of their duties.

(ii) One individual with two or more bosses is more likely to suffer role stress at work.

(iii) It is sometimes more costly – eg working with project manager is an additional job which would not be required in a functional structure.

(iv) It may be difficult for the management to accept a matrix structure in which a manager may feel threatened that another manager will usurp his or her authority. And

(v) It requires consensus and agreement which may slow down decision – making.

(b) The ethical challenges advance by classical theorists that have an impact on people at work by the matrix structure are:

(i) A subordinate takes orders from one boss (the functional manager) and the second boss (the project manager for sugilite) has to ask the first boss to give certain instructions to the subordinate which may create a conflict with the second boss.

(ii) A subordinate takes instructions from one boss about some specific matters and orders from the other boss about different specific matters. The authority of each boss would have to be carefully defined. A good cooperation between the two bosses would still be necessary.

(c) The inherent problems in divisionalisation that the company would face will include any of the following:

(i) A division is partly insulated by holding company from shareholders and capital markets which ultimately reward performance.

(ii) Different product-market divisions might function better as independent companies.

(iii) The divisions are more bureaucratic than they would be as independent companies, owing to the performance measures imposed by the strategic apex.

(iv) Headquarter managements have a tendency to usurp divisional profits by management charges , cross-subsidies, head office bureaucracies, and unfair transfer pricing systems.

(v) It is impossible to identify completely independent products or markets for which divisions would be appropriate.

(vi) Divisionalisation is only possible a fairly senior management level, because there is a limit to how much independence in the division of work can be arranged.

(vii) It is a halfway house, relying on personal control over performance by senior managers and enforcing cross-subsidisation.

(viii) Many of the problems of divionalisation are those of conglomerate diversification. Each business might be better run independently than with the others. The different businesses might offer different returns for different risks which shareholders might prefer to judge independently.

SOLUTION THREE

This question has four parts.

The candidate must show not understanding of the nature of the concept but also demonstrate its relationship to strategy.

(a) **Product life cycle** – this concept holds that, like a human being, a product has life which has distinct stages. Each of the stages calls for a strategy to ensure success for the organization. The first stage is when a product is introduced. This stage is characterized by low sales and profit as the product has just been introduced and is little not yet known in the market; the initial investment costs are yet to be recovered; and there few competitors because of the absence of profit and the presence of risk. Appropriate strategies include increase market share through heavy advertising and product differentiation. After the Introduction stage, the product enters the growth stage, which characterized by growing market acceptance of the new product; a rise in sales and profit and possible entry of competitors attracted by the emerging sales and profit. Possible strategies include continued heavy promotion, product differentiation from products offered by competitors and continued growth by seeking new types of customers. The third stage is the maturity stage where profit and sales begin to slow down or stop growing altogether. The market gets saturated and supply begins to exceed demand. An appropriate strategy is for the firm to embark on product development of innovation. The final stage is the decline stage where the sales and profit are on the decline. The product may be superseded by good substitutes or experience radical shifts in market demand and preferences. The appropriate strategies can include market niche and diversification.

(b) **Risk Management** – involves reducing the probability of the risk occurring and minimizing the impact on the organisation that it will cause. Risk is the uncertainty associated with any particular strategic action. Risk analysis is a key tool in evaluating a strategy. Strategies deal with the future and the future cannot be precisely determined. The acceptability of any strategic alternative therefore depends in part on the element and degree of risk associated with it. The following are some common types of risk associated with decision making:

The following table contains examples of how businesses can minimum the probability and impact of risk.

Minimising probability of Risk	Minimising impact of Risk
Postponing/abandoning of project until the level of risk is reduced	Continually monitor the environment and be prepared to react quickly
Develop links with relevant government departments to help shape policy	Develop contingency plans
Abandon the project	Take out country/political risk insurance

(c) **The balanced scorecard** – was developed upon realization that financial measurements are not enough to measure the performance of overall strategy. A business needs to look at both financial and non-financial measures of performance by looking at the linkages between financial and non-financial measures to prevent a skewed approach to measuring performance. It enables management to look at all relevant measure of performance in an objective and unbiased manner. A scorecard focuses on processes rather than departments. The range of these processes can entail the following:

- Financial processes – increase in monthly turnover, increase in monthly profit, increase in market share, increase in cash flow
- Internal business processes – reduction in inventory levels, reduction in lead times, reduction in waste or errors
- Innovation – product innovation, reward and recognition of staff, adaptability and flexibility of staff, ideas from employees
- Customer – number of new customers, customer retention rate, level of returns, customer satisfaction rating

(d) **Scenario planning** – a scenario is 'an internally consistent view of what the future might turn out to be'. Given the complexity of the environment, scenario planning helps the firm allow for different possibilities of the future and offers them an understanding of the major factors leading to each future scenario. More specifically, Scenario planning allows a firm to identify opportunities and threats that loom in its environment, it compels a firm to look at the wider environment than the one in which it is operating, it helps relate its strategy to its environment, and it helps the firm build the competence it will need.

Gerry Johnson and Gavin Scholes have argued that the use of scenarios I appropriate under the following conditions:

i. Where it is necessary to take a long-term view of strategy
ii. Where there are a limited number of key factors influencing the success of that strategy
iii. Where there is a high level of uncertainty about the influence of such factors

SOLUTION FOUR

a) Conceptual difficulties underlying the pursuit of generic competitive strategies:

Cost leadership strategy:

Cost refers to internal measures, rather than the market demand. It can be used to gain market share; but it is the market share which is important, not cost leadership as such. If cost leadership applies across the whole industry, only one firm will pursue this strategy successfully.

Differentiation strategy:

Porter (1980) assumes that a differentiated product will always be sold at a higher price. However, a differentiated product may be sold at the same price as competing products in order to increase market share. Source of differentiation is another factor. This can include all aspects of the firm's offer, not only the product. Restaurants aim to create an atmosphere of 'ambience', as well as serving food of quality.

Focus strategy:

This has fewer conceptual difficulties as it ties in very neatly with ideas of segmentation. Most companies pursue this strategy to some extent, by designing products or services to meet the needs of particular market segments. The major problems or difficulties of this strategy in practice are that; buyers may shift their preferences away from the focuser's special product attributes and the risk that competitors will find smaller segments within the target segment and thus "outfocus" the focuser. This often happens in the electronics industry.

b) Ways in which collaboration may be a valid strategic option:

i. Buyers and sellers may collaborate to ensure high quality, share the cost of research or reduce inventory costs.
ii. Collaboration between members of a fragmented market increases buying power, as when small retailers co-operate to buy in bulk.
iii. Collaboration between suppliers in an industry over such matters as marketing and research and development can help to build barriers to entry.
iv. On the other hand collaboration can be used to obtain entry to some foreign markets.
v. Knowledge sharing may be required in the public sector, as a form of best practice. This can be achieved through collaborations.

SOLUTION FIVE

a) **Four (4) purposes and uses of a strategic plan and of a business plan:**

Strategic Plan	Business Plan
The strategic plan sets the overall strategic direction of the organisation	A business plan aims to demonstrate the feasibility of a business, usually a new a business.
• Strategic plan is used as an internal tool. The strategic plan may be shared externally. • The SP may be used to inspier employees and to communicate the future direction of the company. • The format of the SP is flexible. An organisation can use a format that suit them. • The SP provides a basis for more detailed planning including business plans.	• A Business plan has a narrower focus than the strategic plan. • A business plan is likely to be shared with external potential investors. • A business plan includes detailed information on the financial position of the organisation, competitor analysis and market analysis. • A business plan is usually formal and detailed in its structure and contents than a strategic plan.

b) **Four (4) categories of input control processes management may consider to get things done:**

i. **Supervision:** Direct supervision can be used for strategic control in addition to its traditional lower level role.

ii. **Planning Processes**: This may involve budgetary control and schemes for the standardization of work processes and IT based enterprise resource planning systems.

iii. **Self-control**: Control can be exercised indirectly by promoting a degree of employee motivation. When combined with autonomy this may lead to effective coordination of activities by individuals interacting with one another.

iv. **Cultural Processes**: Cultural processes are indirect and internalized by employees as they absorb the prevailing culture and its norms of behavior and performance. For example training and development systems are an important aspect of the cultural control system.

c) A network organization structure is one that emphasizes collaboration, communication, and flexibility. Examples of network organisation structures as suggested by Johnson et al (2005) are:

i. **Teleworking**: This structure combines independent work with connection to corporate resources.

ii. **Federations of Experts**: These combine voluntarily and such structures are common in the entertainment industry.

iii. **One stop shops**: For professional services in which a package of services is made available by a co-ordinating entity.

iv. **Service Networks**: Such as the various chains of franchised hotel that co-operate to provide centralized booking facilities.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA3.1 ADVANCED FINANCIAL REPORTING

MONDAY 9 DECEMBER 2024

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.

<u>QUESTION ONE</u> – (COMPULSORY)

The Jop Plc group is composed of Jop Plc (Jop) and its two subsidiaries, Kondwa Plc (Kondwa) and Zinzie Plc (Zinzie). Both Jop and Kondwa have their operations in Zambia with Kwacha (K) as their functional currency whilst Zinzie is based in South Africa and has South African Rand (ZAR) as its functional currency. Kwacha is the group's presentation currency.

The draft statements of Financial Position of the three companies are as follows:

Statement of Financial Position as at 31 December 2024:

	Jop	**Kondwa**	**Zinzie**
ASSETS			
Non current	**K'm**	**K'm**	**ZAR'm**
Property, plant and equipment	430	220	330
Investment in :			
Kondwa Plc	90	-	-
Zinzie Plc	264	-	-
Jopungu	20		
Current	65	76	90
Total assets	869	296	420
EQUITY AND LIABILITIES			
Equity			
Share Capital (K1 shares)	100	50	100
Retained Earnings	405	56	140
Other Reserves	209	44	120
	714	150	360
Non current liabilities	115	69	35
Current liabilities	40	77	25
	869	296	420

Further information:

1. Jop acquired 80% of Kondwa's equity on 1 January 2020 at a cost of K90 million when Kondwa's retained earnings and other reserves amounted to K30 million and K25 million respectively. The fair value of Kondwa's identifiable net assets on that date was K110 million. Any difference between the fair value and carrying amounts of Kondwa's identifiable net assets was attributable to an item of plant whose remaining useful economic life at 1 January 2020 was three (3) years. The fair value of a 20% shareholding in Kondwa at 1 January 2020 was K22.5 million. The Jop group's policy is to measure the non controlling interests in Kondwa using the full goodwill method.

2. On 1 April 2024, Jop sold a 25% holding in Kondwa for cash proceeds amounting to K41 million. The only entry Jop made in its draft financial statements above in respect of this

transaction was a debit to cash and a corresponding credit to profit or loss. Jop's remaining holding in Kondwa had a fair value of K90.2 million on the date of disposal.

Kondwa's profit and other comprehensive income for the year to 31 December 2024 amounted to K8 million and K3 million respectively.

3. Jop acquired 60% of Zinzie's equity on 1 January 2023 at a cost of ZAR220 million when Zinzie's retained earnings and other reserves were ZAR115 million and ZAR105 million respectively. The fair value of Zinzie's identifiable net assets on that date was ZAR350 million. Any difference between the fair value and carrying amounts of Zinzie's identifiable net assets was attributable to an item of plant whose remaining useful economic life at 1 January 2023 was five (5) years. The fair of a 40% of a 40% shareholding in Zinzie at 1 January 2023 was ZAR146.7 million. The Jop group's policy is to measure the non controlling interests in Zinzie using the proportionate goodwill method.

   Zinzie's profit and other comprehensive income for the year to 31 December 2024 amounted to ZAR12 million and ZAR8 million respectively.

4. The group has always conducted impairment reviews of the net assets of Kondwa and Zinzie. There have been no impairment losses of goodwill in the past. However, in the year to 31 December 2024, goodwill on acquisition of Zinzie has been impaired by 25%.

5. Exchange Rates between Kwacha and Rand have moved as followed:

Date	Rate (**Kwacha to 1 ZAR**)
1 January 2023	1.20
31 December 2023	1.31
31 December 2024	1.42
Average for the year to 31 December 2023	1.25
Average for the year to 31 December 2024	1.36

6. On 1 January 2024, Jop and a third party entity, Jungu Plc, formed a new entity, Jopungu limited (Jopungu) to undertake farming operations on behalf of its investors. Jop paid cash amounting to K20 million as consideration for a 50% stake in Jopungu.

   In the first year of its operations (the year to 31 December 2024), Jopungu made a profit amounting to K3 million out of which it paid a dividend of K2 million in November 2024. Jopungu made sales of trading inventory to Jop during the period amounting to K1.5 million on which it made a profit markup of 50%. All these goods are still owned by Jop as at 31 December 2024.

   Jop and Jungu have joint control of Jopungu.

7. Jop's draft profit and other comprehensive income for the year to 31 December 2024 before adjustments arising from the further information amounted K66 million and K10 million respectively. The company paid a dividend of K8 million to its shareholders during October 2024.

   Dividends paid by Kondwa and Zinzie during the year to 31 December 2024 amounted to K4 million and ZAR6 million respectively. Both companies paid the dividends on 31 December 2024.

Jop has reported all dividends received from its investees as income in its profit or loss for the year to 31 December 2024. Zinzie did not pay any dividends during the year to 31 December 2023.

Required:

(a) Prepare the Jop Plc Group consolidated statement of changes in equity for the year ended 31 December 2024. (30 marks)

(b) Prepare the Jop Plc Group consolidated statement of financial position as at 31 December 2024. (10 marks)

[Total 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt ANY THREE (3) questions.

QUESTION TWO

Munyinane Plc was incorporated thirty (30) years ago Luanshya, with a mission to manufacture high quality blocks for the Zambian market. The company has grown to profitability levels whereby its shares have become highly marketable. Its Board of Directors have come up with a number of remuneration schemes aimed at improving goal congruency between the company's corporate goals and the personal goals of its directors.

In preparing financial statements for the year ended 31 December 2025, directors are seeking advice on how the following transactions must be treated:

1. On 1 October 2024, Munyinane granted each of its four Directors options on 600,000 Munyinane Plc equity shares exerciseable at a price of K4.5 per share on 30 June 2028. The rights under the options will only vest with the directors after they remain in service with Munyinane over a three (3) year performance period commencing 1 January 2025. Munyinane Plc had initially expected three (3) Directors to leave before end of the performance period. However, as at 31 December 2025, though one director left during the year to 31 December 2025, the company does not expect any further departures over the next two (2) years.

   Munyinane plc is seeking advice on how to account for the share options arrangement including the deferred tax implications of the arrangement in its financial statements for the year to 31 December 2025.
   (10 marks)

2. Munyinane Plc entered an agreement with its senior managers under which it agreed to reward them with a cash bonus based on an increase in the price of its equity shares, Share Appreciation Rights (ZARs). Under the arrangement, entered into on 1 October 2024, Munyinane has promised to pay each of its Six (6) senior managers a cash bonus equal to the increase in the market price of 200,000 Munyinane Plc equity shares over a period of at least three (3) years beginning 1 January 2025.

   The Senior Managers must remain in service with Munyinane Plc throughout the three (3) year period up to 31 December 2027 for them to qualify for the bonus. However, Managers can exercise the rights at any time after the three (3) years' performance period but not later than 31 December 2028. The bonus for each manager will be computed as 'increase in the fair value of each share between 1 January 2025 and the exercise date multiplied by 200,000 shares'. At the time the arrangement was being entered, Munyinane Plc had expected that all the six (6) Managers would qualify for the bonus. However, although none of the Managers left employment with Munyinane during the year to 31 December 2025, the company expects that two (2) Managers will leave the company over the next two (2) years. Costs relating to employee remuneration are generally tax deductible in the period when they fall due for payment to employees.

Munyinane plc is seeking advice on how to account for the ZARs arrangement including the deferred tax implications of the arrangement in its financial statements for the year to 31 December 2025.
(10 marks)

Additional information (for both transactions)

1. Munyinane Plc is liable to income tax on its profits at a tax rate of 40%.

2. The fair value of each Munyinane Plc's **equity share** has been as follows:

Date	Fair value per share (K)
1 October 2024	4.5
1 January 2025	4.6
31 December 2025	5.1

3. The fair value of **each option** on Munyinane's equity shares has been as follows:

Date	Fair value per option (K)
1 October 2024	0.5
1 January 2025	0.7
31 December 2025	0.8

Required:

Explain to Munyinane Plc's Directors how the above arrangements must be accounted for in accordance with the IFRS framework addressing their concerns. **[Total: 20 Marks]**

QUESTION THREE

Kamonde Plc is an investment company whose business model involves sourcing funds from both equity and debt investors and channelling the funds into a range of investment instruments. The company is based in Zambia and has Kwacha (K) as its functional currency.

The Directors of Kamonde Plc (Kamonde) are finalising the preparation of financial statements for the year to 31 December 2024 and seek advice on accounting for a number of transactions including the following:

Investment in Madunusu Plc (Madunusu) Bonds

On 1 January 2023, Kamonde acquired 2 million K1 bonds in Madunusu at a discount of 5%. Broker fees paid by Kamonde amounted to K0.2 million. The bonds have a coupon rate of 12% and contractual interest payments are due on 31 December each year. They mature on 31 December 2026 and are redeemable at par upon maturity.

Kamonde's business model in respect of the class of assets to which the bonds belong is to hold them till maturity in order to realise the contractual cash flows. The effective original interest rate on the bonds is 10.41%.

Based on the assessment that Madunusu's credit worthiness had not deteriorated since 1 January 2023, Kamonde had reported a loss allowance on the bonds amounting to K0.15 million at 31 December 2023.

As at 31 December 2024, Kamonde's assessment is that Madunusu's credit worthiness has deteriorated to below the level at 1 January 2023 despite no defaults to date. In re-assessing the measurement of the loss allowance at 31 December 2024, Kamonde has estimated the following probability distribution in respect of forecast cash flows receivable from the bond in future:

Date (31 December)	Nature of cash flow	Possible receipt (k'm)	Probability (%)
2025	Interest	0.24	75
	Interest	0.2	20
	Interest	0.18	5
2026	Interest	0.24	80
	Interest	0.19	15
	Interest	0.16	5
	Principal	2.0	75
	Principal	1.9	20
	Principal	1.85	5

All past coupon payments up to 31 December 2024 have been received in full.

The Directors of Kamonde seek advice on the treatment of the bonds in its financial statements for the year to 31 December 2024 and amounts to report therein in respect of the bonds.

(10 marks)

Investment in Izeke Plc (Izeke) Shares

On 1 January 2024, Kamonde acquired 4 million equity shares in Izeke Plc (Izeke), a company based in South Africa, at a price of ZAR2.5 per share. Izeke share prices are quoted in South African Rands (ZAR). Broker fees paid by Kamonde in respect of the transaction amounted to ZAR0.1 million. On 1 October 2024, Kamonde received a dividend from Izeke amounting to ZAR1.5 million. Each Izeke share is quoted at a price of ZAR3.1 on 31 December 2024.

Kamonde Plc has made an irrevocable election in accordance with IFRS 9 Financial Instruments with regard to the classification of Kamonde's investment in Izeke for measurement purposes.

The following exchange rates occurred during the year to 31 December 2024:

Date	**Exchange rate (Kwacha to 1 ZAR)**
1 January 2024	1.2
1 October 2024	1.28
31 December 2024	1.4
Average for y/e 31.12.2024	1.32

The Directors of Kamonde seek advice on the treatment of the investment in Izeke shares in its financial statements for the year to 31 December 2024 and amounts to report therein in respect of the shares.

(10 marks)

The Directors of Kamonde are also concerned about the deferred tax effects of the above transactions. Kamonde is liable to income tax at 30%.

Required:
Advise the directors of Kamonde Plc on the accounting treatment of the above transactions **including the deferred tax effects** in accordance with the IFRS framework.

[Total 20 Marks]

QUESTION FOUR

(a) Zamfurniture has been experiencing substantial losses at its furniture making operation which is treated as a separate operating segment. The company's year-end is 30 September. At a meeting on 1 July 2023 the directors decided to close down the furniture making operation on 31 January 2024 and then dispose of its non-current assets on a piecemeal basis. Affected employees and customers were informed of the decision and a press announcement was made immediately after the meeting. The directors have obtained the following information in relation to the closure of the operation:

(1) On 1 July 2023, the factory had a carrying amount of K3.6 million and is expected to be sold for net proceeds of K5 million. On the same date the plant had a carrying amount of K2.8 million, but it is anticipated that it will only realise net proceeds of K500,000.

(2) Of the employees affected by the closure, the majority will be made redundant at cost of K750,000, the remainder will be retrained at a cost of K200,000 and given work in one of the company's other operations.

(3) Trading losses from 1 July to 30 September 2023 are expected to be K600,000 and from this date to the closure on 31 January 2024 a further K1million of trading losses are expected.

Required:

Explain how the decision to close the furniture making operation should be treated in Zamfurniture's financial statements for the years ending 30 September 2023 and 2024. Your answer should quantify the amounts involved. (10 marks)

(b) IFRS 8 sets out requirements for disclosure of information about an entity's operating segments and also about the entity's products and services, the geographical areas in which it operates, and its major customers.

Lesawaluse, a public limited company, trades in four business areas which are reported separately in its internal accounts provided to the chief operating decision maker. The four operating segments are car parts, software, electronics and cosmetics.

Operating segment information as at 31 March 2024 are as follows:

Operating Segments	Total revenue (K' million)	Segment profit/loss (K' million)	Segment Assets (K' million)	Segment Liabilities (K' million)
Car parts	67	11	118	77
Software	10	(2)	18	11
Electronics	12	1	19	10
Cosmetics	47	(6)	54	33
TOTALS	136	4	209	131

Required:

(i) Explain what is meant by the following terms according to IFRS 8: Operating Segment and Reportable Segment. (6 marks)

(iii) Discuss which of the operating segments of Lesawaluse constitute a 'reportable' operating segment under IFRS 8 Operating Segments for the year ending 31 March 2024. (4 marks)

[Total: 20 Marks]

QUESTION FIVE

The Luwaniko Plc Group of companies has embarked on a strategy to grow through acquiring an additional subsidiary. It has identified two target companies from the same industry and of a similar size, Nkhula Limited (Nkhula) and Yobe Limited (Yobe), to choose from.

As a Financial Analyst, you have been asked to undertake a comparative financial analysis of the two target companies and recommend which one of the two companies must be acquired. Your analysis must cover the following areas: Profitability (including profit margins and asset turnover), Liquidity and Working Capital Management, and Gearing.

The following are extracts from annual reports of the two companies for the year to 31 December 2024.:

Statements of profit or loss and other comprehensive income:

	Nkhula	**Yobe**
	K'000	K'000
Revenue	555,000	444,000
Cost of Sales	(286,500)	(243,525)
Gross Profit	268,500	200,475
Distribution Costs	(105,000)	(78,750)
Administrative Expenses	(115,500)	(112,499)
Finance Costs	(20,625)	(6,188)
Profit Before Tax	27,375	3,038
Income Tax Expense	(11,100)	(1,110)
Profit for the Year	16,275	1,928
OCI		
Revaluation of Property	(5,856)	6,000
OCI for the Year	(5,856)	6,000
Total CI for the Year	10,419	7,928

Statements of financial position:

	Nkhula	**Yobe**
Assets	K'000	K'000
Non current		
Property, Plant and Equipment	474,000	435,750
Development costs	45,000	50,400
	519,000	486,150
Current		
Inventory	70,200	72,300

Trade Receivables	148,530	126,660
Bank	45,900	-
	264,630	198,960
Total Assets	783,630	685,110
Equty and Liabilities		
Share Capital (K1 Shares)	300,000	240,000
Reserves:		
Share Premium	171,000	178,500
Retained Earning	12,000	129,300
Revaluation Reserve	-	6,000
Total Equity	483,000	553,800
Non current liabilities		
Deferred Tax	55,800	52,200
10% Loan Notes	187,230	28,410
	243,030	80,610
Current Liabilities		
Bank Overdraft	-	1,500
Trade Payables	36,000	22,800
Current Tax	21,600	26,400
	57,600	50,700
Total Equity and Liabilities	783,630	685,110

Additional information:

(1) Nkhula is a family company. It has been occupying a property owned by one of its shareholder directors free of any rental charge for the past (2) years. The property would attract rent amounting to K1.5 million per annum at current market prices.

(2) On 1 January 2023, Yobe disposed of a property it previously used as administrative offices. On the same date, the company entered a contract renting premises from another entity third party at a rental of K2 million per annum for a term of five (5) years. In both the financial statements for the year to 31 December 2023 and the above financial statements, Yobe accounted for the lease contract by simply charging the annual rent as an expense in profit or loss. The interest rate implicit in the lease is 10%. All lease liabilities are to be treated as part of capital employed in determining the company's profitability and gearing.

Required:

Write a report to the Directors of Luwaniko Plc analysing the comparative financial performance and position of Nkhula and Yobe and recommend which one of the two (2) companies must be acquired. Ignore any tax effects of adjustments to the financial statements above arising from the additional information.

[Total: 20 Marks]

END OF PAPER

Formulae

Modigliani and Miller Proposition 2 (with tax)

$$k_e = k_e^i + (1 - T)(k_e^i - k_d)\frac{V_d}{V_e}$$

Two asset portfolio

$$s_p = \sqrt{w_a^2 s_a^2 + w_b^2 s_b^2 + 2w_a w_b r_{ab} s_a s_b}$$

The Capital Asset Pricing Model

$$E(r_i) = R_f + \beta_i (E(r_m) - R_f)$$

The asset beta formula

$$\beta_a = \left[\frac{V_e}{(V_e + V_d(1-T))}\beta_e\right] + \left[\frac{V_d(1-T)}{(V_e + V_d(1-T))}\beta_d\right]$$

The Growth Model

$$P_o = \frac{D_o(1+g)}{(r_e - g)}$$

Gordon's growth approximation

$$g = br_e$$

The weighted average cost of capital

$$WACC = \left[\frac{V_e}{V_e + V_d}\right]k_e + \left[\frac{V_d}{V_e + V_d}\right]k_d(1-T)$$

The Fisher formula

$$(1+i) = (1+r)(1+h)$$

Purchasing power parity and interest rate parity

$$S_1 = S_0 x \frac{(1+h_c)}{(1+h_b)} \qquad F_0 = S_0 x \frac{(1+i_c)}{(1+i_b)}$$

Modified Internal Rate of Return

$$MIRR = \left[\frac{PV_R}{PV_I}\right]^{\frac{1}{n}}\left(1+r_e\right)-1$$

The Black-Scholes option pricing model

$$c = P_a N(d_1) - P_e N(d_2) e^{-rt}$$

Where:

$$d_1 = \frac{\ln(P_a / P_e) + (r + 0.5s^2)t}{s\sqrt{t}}$$

$$d_2 = d_1 - s\sqrt{t}$$

The Put Call Parity relationship

$$p = c - P_a + P_e e^{-rt}$$

Present Value Table

Present value of 1 i.e. $(1 + r)^{-n}$

Where r = discount rate
n = number of periods until payment

Discount rate (r)

Periods (n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0·990	0·980	0·971	0·962	0·952	0·943	0·935	0·926	0·917	0·909	1
2	0·980	0·961	0·943	0·925	0·907	0·890	0·873	0·857	0·842	0·826	2
3	0·971	0·942	0·915	0·889	0·864	0·840	0·816	0·794	0·772	0·751	3
4	0·961	0·924	0·888	0·855	0·823	0·792	0·763	0·735	0·708	0·683	4
5	0·951	0·906	0·863	0·822	0·784	0·747	0·713	0·681	0·650	0·621	5
6	0·942	0·888	0·837	0·790	0·746	0·705	0·666	0·630	0·596	0·564	6
7	0·933	0·871	0·813	0·760	0·711	0·665	0·623	0·583	0·547	0·513	7
8	0·923	0·853	0·789	0·731	0·677	0·627	0·582	0·540	0·502	0·467	8
9	0·941	0·837	0·766	0·703	0·645	0·592	0·544	0·500	0·460	0·424	9
10	0·905	0·820	0·744	0·676	0·614	0·558	0·508	0·463	0·422	0·386	10
11	0·896	0·804	0·722	0·650	0·585	0·527	0·475	0·429	0·388	0·305	11
12	0·887	0·788	0·701	0·625	0·557	0·497	0·444	0·397	0·356	0·319	12
13	0·879	0·773	0·681	0·601	0·530	0·469	0·415	0·368	0·326	0·290	13
14	0·870	0·758	0·661	0·577	0·505	0·442	0·388	0·340	0·299	0·263	14
15	0·861	0·743	0·642	0·555	0·481	0·417	0·362	0·315	0·275	0·239	15

(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0·901	0·893	0·885	0·877	0·870	0·862	0·855	0·847	0·840	0·833	1
2	0·812	0·797	0·783	0·769	0·756	0·743	0·731	0·718	0·706	0·694	2
3	0·731	0·712	0·693	0·675	0·658	0·641	0·624	0·609	0·593	0·579	3
4	0·659	0·636	0·613	0·592	0·572	0·552	0·534	0·516	0·499	0·482	4
5	0·593	0·567	0·543	0·519	0·497	0·476	0·456	0·437	0·419	0·402	5
6	0·535	0·507	0·480	0·456	0·432	0·410	0·390	0·370	0·352	0·335	6
7	0·482	0·452	0·425	0·400	0·376	0·354	0·333	0·314	0·296	0·279	7
8	0·434	0·404	0·376	0·351	0·327	0·305	0·285	0·266	0·249	0·233	8
9	0·391	0·361	0·333	0·308	0·284	0·263	0·243	0·225	0·209	0·194	9
10	0·352	0·322	0·295	0·270	0·247	0·227	0·208	0·191	0·176	0·162	10
11	0·317	0·287	0·261	0·237	0·215	0·195	0·178	0·162	0·148	0·135	11
12	0·286	0·257	0·231	0·208	0·187	0·168	0·152	0·137	0·124	0·112	12
13	0·258	0·229	0·204	0·182	0·163	0·145	0·130	0·116	0·104	0·093	13
14	0·232	0·205	0·181	0·160	0·141	0·125	0·111	0·099	0·088	0·078	14
15	0·209	0·183	0·160	0·140	0·123	0·108	0·095	0·084	0·074	0·065	15

Annuity Table

Present value of an annuity of 1 i.e. $\frac{1-(1+r)^{-n}}{r}$

Where r = discount rate
n = number of periods

Discount rate (r)

Periods (n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0·990	0·980	0·971	0·962	0·952	0·943	0·935	0·926	0·917	0·909	1
2	1·970	1·942	1·913	1·886	1·859	1·833	1·808	1·783	1·759	1·736	2
3	2·941	2·884	2·829	2·775	2·723	2·673	2·624	2·577	2·531	2·487	3
4	3·902	3·808	3·717	3·630	3·546	3·465	3·387	3·312	3·240	3·170	4
5	4·853	4·713	4·580	4·452	4·329	4·212	4·100	3·993	3·890	3·791	5
6	5·795	5·601	5·417	5·242	5·076	4·917	4·767	4·623	4·486	4·355	6
7	6·728	6·472	6·230	6·002	5·786	5·582	5·389	5·206	5·033	4·868	7
8	7·652	7·325	7·020	6·733	6·463	6·210	5·971	5·747	5·535	5·335	8
9	8·566	8·162	7·786	7·435	7·108	6·802	6·515	6·247	5·995	5·759	9
10	9·471	8·983	8·530	8·111	7·722	7·360	7·024	6·710	6·418	6·145	10
11	10·37	9·787	9·253	8·760	8·306	7·887	7·499	7·139	6·805	6·495	11
12	11·26	10·58	9·954	9·385	8·863	8·384	7·943	7·536	7·161	6·814	12
13	12·13	11·35	10·63	9·986	9·394	8·853	8·358	7·904	7·487	7·103	13
14	13·00	12·11	11·30	10·56	9·899	9·295	8·745	8·244	7·786	7·367	14
15	13·87	12·85	11·94	11·12	10·38	9·712	9·108	8·559	8·061	7·606	15

(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0·901	0·893	0·885	0·877	0·870	0·862	0·855	0·847	0·840	0·833	1
2	1·713	1·690	1·668	1·647	1·626	1·605	1·585	1·566	1·547	1·528	2
3	2·444	2·402	2·361	2·322	2·283	2·246	2·210	2·174	2·140	2·106	3
4	3·102	3·037	2·974	2·914	2·855	2·798	2·743	2·690	2·639	2·589	4
5	3·696	3·605	3·517	3·433	3·352	3·274	3·199	3·127	3·058	2·991	5
6	4·231	4·111	3·998	3·889	3·784	3·685	3·589	3·498	3·410	3·326	6
7	4·712	4·564	4·423	4·288	4·160	4·039	3·922	3·812	3·706	3·605	7
8	5·146	4·968	4·799	4·639	4·487	4·344	4·207	4·078	3·954	3·837	8
9	5·537	5·328	5·132	4·946	4·772	4·607	4·451	4·303	4·163	4·031	9
10	5·889	5·650	5·426	5·216	5·019	4·833	4·659	4·494	4·339	4·192	10
11	6·207	5·938	5·687	5·453	5·234	5·029	4·836	4·656	4·486	4·327	11
12	6·492	6·194	5·918	5·660	5·421	5·197	4·988	4·793	4·611	4·439	12
13	6·750	6·424	6·122	5·842	5·583	5·342	5·118	4·910	4·715	4·533	13
14	6·982	6·628	6·302	6·002	5·724	5·468	5·229	5·008	4·802	4·611	14
15	7·191	6·811	6·462	6·142	5·847	5·575	5·324	5·092	4·876	4·675	15

Standard normal distribution table

	0·00	0·01	0·02	0·03	0·04	0·05	0·06	0·07	0·08	0·09
0·0	0·0000	0·0040	0·0080	0·0120	0·0160	0·0199	0·0239	0·0279	0·0319	0·0359
0·1	0·0398	0·0438	0·0478	0·0517	0·0557	0·0596	0·0636	0·0675	0·0714	0·0753
0·2	0·0793	0·0832	0·0871	0·0910	0·0948	0·0987	0·1026	0·1064	0·1103	0·1141
0·3	0·1179	0·1217	0·1255	0·1293	0·1331	0·1368	0·1406	0·1443	0·1480	0·1517
0·4	0·1554	0·1591	0·1628	0·1664	0·1700	0·1736	0·1772	0·1808	0·1844	0·1879
0·5	0·1915	0·1950	0·1985	0·2019	0·2054	0·2088	0·2123	0·2157	0·2190	0·2224
0·6	0·2257	0·2291	0·2324	0·2357	0·2389	0·2422	0·2454	0·2486	0·2517	0·2549
0·7	0·2580	0·2611	0·2642	0·2673	0·2704	0·2734	0·2764	0·2794	0·2823	0·2852
0·8	0·2881	0·2910	0·2939	0·2967	0·2995	0·3023	0·3051	0·3078	0·3106	0·3133
0·9	0·3159	0·3186	0·3212	0·3238	0·3264	0·3289	0·3315	0·3340	0·3365	0·3389
1·0	0·3413	0·3438	0·3461	0·3485	0·3508	0·3531	0·3554	0·3577	0·3599	0·3621
1·1	0·3643	0·3665	0·3686	0·3708	0·3729	0·3749	0·3770	0·3790	0·3810	0·3830
1·2	0·3849	0·3869	0·3888	0·3907	0·3925	0·3944	0·3962	0·3980	0·3997	0·4015
1·3	0·4032	0·4049	0·4066	0·4082	0·4099	0·4115	0·4131	0·4147	0·4162	0·4177
1·4	0·4192	0·4207	0·4222	0·4236	0·4251	0·4265	0·4279	0·4292	0·4306	0·4319
1·5	0·4332	0·4345	0·4357	0·4370	0·4382	0·4394	0·4406	0·4418	0·4429	0·4441
1·6	0·4452	0·4463	0·4474	0·4484	0·4495	0·4505	0·4515	0·4525	0·4535	0·4545
1·7	0·4554	0·4564	0·4573	0·4582	0·4591	0·4599	0·4608	0·4616	0·4625	0·4633
1·8	0·4641	0·4649	0·4656	0·4664	0·4671	0·4678	0·4686	0·4693	0·4699	0·4706
1·9	0·4713	0·4719	0·4726	0·4732	0·4738	0·4744	0·4750	0·4756	0·4761	0·4767
2·0	0·4772	0·4778	0·4783	0·4788	0·4793	0·4798	0·4803	0·4808	0·4812	0·4817
2·1	0·4821	0·4826	0·4830	0·4834	0·4838	0·4842	0·4846	0·4850	0·4854	0·4857
2·2	0·4861	0·4864	0·4868	0·4871	0·4875	0·4878	0·4881	0·4884	0·4887	0·4890
2·3	0·4893	0·4896	0·4898	0·4901	0·4904	0·4906	0·4909	0·4911	0·4913	0·4916
2·4	0·4918	0·4920	0·4922	0·4925	0·4927	0·4929	0·4931	0·4932	0·4934	0·4936
2·5	0·4938	0·4940	0·4941	0·4943	0·4945	0·4946	0·4948	0·4949	0·4951	0·4952
2·6	0·4953	0·4955	0·4956	0·4957	0·4959	0·4960	0·4961	0·4962	0·4963	0·4964
2·7	0·4965	0·4966	0·4967	0·4968	0·4969	0·4970	0·4971	0·4972	0·4973	0·4974
2·8	0·4974	0·4975	0·4976	0·4977	0·4977	0·4978	0·4979	0·4979	0·4980	0·4981
2·9	0·4981	0·4982	0·4982	0·4983	0·4984	0·4984	0·4985	0·4985	0·4986	0·4986
3·0	0·4987	0·4987	0·4987	0·4988	0·4988	0·4989	0·4989	0·4989	0·4990	0·4990

This table can be used to calculate $N(d)$, the cumulative normal distribution functions needed for the Black-Scholes model of option pricing. If $d_i > 0$, add 0·5 to the relevant number above. If $d_i < 0$, subtract the relevant number above from 0·5.

CA3.1 ADVANCED FINANCIAL REPORTING SUNGGESTED SOLUTIONS

SOLUTION ONE

a) Jop Group consolidated SOCIE for the year ended 31 December 2024

	Share Capital	Retained Earnings		Exch. Diff		Other reserves		Equity attrib. to owners of parent	NCI		Total equity
	K'm	K'm		K'm		K'm		K'm	K'm		K'm
Balances at 1.1.24	100	370.4	W1.	24.9	W3.	217.1	W6.	712.3	223.0	W7.	935.3
Changes for y/e 31.12.24:											
Total CI		24.3	W8.	25.9	W9.	18.4	W12.	68.6	28.5	W14.	97.1
Reduction of interest in Kondwa:											
Disposal proceeds						41		41.0			41.0
NA transferred to NCI						-37.1	W13.	-37.1	37.1		0.0
Dividends		-8						-8.0	-5.2	W15.	-13.2
Balances at 31.12.24	100	386.7		50.8		239.4		776.8	283.3		1,060.2

Workings to SOCIE

1	**Group Retained Earnings at 1.1.2024**		K'm
	Jop RE at 1.1.24	(405-66+8)	347.0
	Share of post acq RE of:		
	kondwa	80%(56-8+4-30)	17.6
	Zinzie y/e 31.12.2023	60%(140-12+6-115)X1.25	14.3
	Share of adjustments		
	Fv deprec; Kondwa	80%(110-50-30-25)/3X3	-4.0

Fv deprec; Zinzie	60% (350-100-115-105)/5X1.25	-4.5
Group RE at 1.1.24 (or 31.12.23)		370.4

2 Exchange differences reserve at 1.1.2024

Share of accumultaed exchange differences on:		
Zinzie's Identifiable net assets	60%X39.7(W3)	23.8
Goodwill on acquisition of Zinzie	(W4)	1.1
Exchange differences reserve at 1.1.2024		24.9

3 Accumulated Exchange differences on identifiable net assets of Zinzie at 1.1.2024

		SAR'm	Rate	K'm
Identifiable N.A at acquisition		350	1.2	420.0
Total CI y/e 31.12.23:				
- Profit	(140-12+6-115)	19	1.25	23.8
- OCI	(120-8-105)	7	1.25	8.8
FV depreciation:				
- y/e 31.12.23	(350-100-115-105)/5	-6	1.25	-7.5
Identifiable N.A at 31.12.23 before exch. Diff		370		445.0
Accum exch diff at 31.12.2023 (balance)		0		39.7
Identifiable N.A at 31.12.23		370	1.31	484.7

4 Accumulated Exchange differences on goodwill on acquisition of Zinzie at 1.1.2024

	SAR'm		Rate	K'm
Goodwill at acquisition	10.0	W5	1.2	12.0
impairment losses in y/e 31.12.23	0		1.25	0.0
Goodwill at 31.12.23 before exch. Diff	10			12

Accum exch diff at 31.12.2023 (balance)	0		1.1
Goodwill at 31.12.23	10	1.31	13.1

5 Goodwill at acquisition of Zinzie

		SAR'm
cost of acquisition		220.0
NCI at acquisition	40%X350	140
identifiable NA at acquisition		-350.0
Goodwill at acquisition		10.0

6 Group Other Reserves at 1.1.2024

		K'm
Jop Other reserves at 1.1.24	(209-10)	199
Share of post acq other reserves of:		
kondwa	80% (44-3-25)	12.8
Zinzie y/e 31.12.2023	60% (120-8-105)X1.25	5.3
Group Other Reserves at 1.1.24 (or 31.12.23)		217.1

7 NCI at 31.12.2023 (1.1.2024)

At acquisition of Kondwa		22.5
At acquisition of Zinzie	40%X350X1.2	168
Share of post acq RE of:		
kondwa	20% (56-8+4-30)	4.4
Zinzie y/e 31.12.2023	40%(140-12+6-115)X1.25	9.5
Share of adjustments		
Fv deprec; Kondwa	20%(110-50-30-25)/3X3	-1.0
Fv deprec; Zinzie	40%(350-100-115-105)/5X1.25	-3.0
Share of accumultaed exchange differences on:		
Zinzie's Identifiable net assets	40%X39.7(W3)	15.9

Goodwill on acquisition of Zinzie	Proportionate goodwill method	0.0
Share of post acq other reserves of:		
kondwa	20%(44-3-25)	3.2
Zinzie y/e 31.12.2023	40%(120-8-105)X1.25	3.5
NCI at 31.12.2023 (1.1.2024)		223.0

8 Group profit for the year to 31.12.2024 attributable to owners of parent

Jop draft profit the year		66.0
Share of investees profit for the year:		
Kondwa first 3 months	80%*8*3/12	1.6
Kondwa last 9 months	55%*8*9/12	3.3
Zinzie	60%*12*1.36	9.792
Jopungu	50%*(3-1.5*50/150)	1.25
Adjustments:		
Fv deprec; Kondwa first 3 months	Fully depreciated	0.0
Fv deprec; Kondwa last 9 months	Fully depreciated	0.0
Fv deprec; Zinzie	60%(350-100-115-105)/5X1.36	-4.9
Redirect disposal proceeds on reducing holding in kondwa to other reserves		-41.0
Goodwill impairment losses - Zinzie:	25%x10*1.36	-3.4
Eliminate intra group dividend income by parent:		
From Kondwa	55%*4	-2.2
From Zinzie	60%*6*1.42	-5.112
Jopungu	50%*2	-1
		24.3

9 Exchange differences for the year ended 31.12.2024 attributable to owners of parent

Share of exchange differences for the year on Zinzie's:		
Identifiable net assets	60%X41.5(W10)	24.9

Goodwill	(W11)	0.9
Exchange differences for the year to 31.12.2024		25.9

10 Exchange differences for the year to 31.12.2024 on identifiable net assets of Zinzie

	SAR'm		Rate	K'm
Identifiable N.A at 1.1.2024	370	W3.	1.31	484.7
Total CI y/e 31.12.24:				
- Profit	12		1.36	16.3
- OCI	8		1.36	10.9
FV depreciation:				
- y/e 31.12.24	-6		1.36	-8.2
Dividends paid 31.12.2024	-6		1.42	-8.5
Identifiable N.A at 31.12.24 before exch. Diff	378			495.22
Exch diff for y/e 31.12.2024 (balance)	0			41.5
Identifiable N.A at 31.12.23	378		1.42	536.8

11 Exchange differences on goodwill on acquisition of Zinzie for y/e 31.12.2024

	SAR'm		Rate	K'm
Goodwill at 1.1.24	10.0	W5	1.31	13.1
impairment losses in y/e 31.12.23	-2.5		1.36	-3.4
Goodwill at 31.12.23 before exch. Diff	7.5			9.7
Accum exch diff at 31.12.2023 (balance)	0			0.9
Goodwill at 31.12.23	7.5		1.42	10.7

12 Group other reserves for the year to 31.12.2024 attributable to owners of parent

	K'm
Jop Other CI for the y/e 31.12.24	10.0

Share of investees other reserves for y/e 31.12.2024:

kondwa first 3 months	80%X3x3/12	0.6
Kondwa last 9 months	55%x3x9/12	1.2
Zinzie	60%x8x1.36	6.5
Jopungu		0.0
		18.4

13 Kondwa net assets transferred to NCI on Jop reducing its holding

Kondwa net assets at date of disposal (1.4.2024)

Share capital		50.0
RE	[56-(8x9/12-4)]	54.0
Other reserves	[44-3x9/12]	41.8
Net FV gain	Fully depreciated	-
Identifiable net assets at 1.4.2024		145.8
Goodwill	(90+22.5-110)	2.5
		148.3
Amount transferred to NCI	148.3x25%	37.1

14 Total comprehensive income for the y/e 31.12.2024 attributable to NCI

		K'm
Share of investees profit for the year:		
Kondwa first 3 months	20%8x3/12	0.4
Kondwa last 9 months	45%(8x9/12)	2.7
Zinzie	40%(12x1.36)	6.5
Adjustment to profit for the year:		
Fv deprec; Kondwa first 3 months	Fully depreciated	0.0
Fv deprec; Kondwa last 9 months	Fully depreciated	0.0
Fv deprec; Zinzie	40%(350-100-115-105)/5X1.36	-3.3

Goodwill impairment losses - Zinzie:	Proportionate goodwill method	0.0
Share of investees other reserves for y/e 31.12.2024:		
kondwa first 3 months	20%X3x3/12	0.2
Kondwa last 9 months	45%x3x9/12	1.0
Zinzie	40%x8x1.36	4.4
Share of exch. Diff. on Zinzie's identifiable NA for y/e 31.12.2024	40%x41.5	16.6
		28.5

15 Dividends paid to NCI

Paid by Kondwa	4x45%	1.8
Paid by zinzie	6x40%*1.42	3.4
		5.2

(b) Jop Group consolidated SFP as at 31 December 2024

ASSETS		K'm
Non current assets		
PPE	W1.	1,144.2
Goodwill	W2.	13.2
Investment in Joint Venture	W3.	20.3
		1,177.6
Current assets	(65+76+90x1.42)	268.8
Total assets		1,446.4

EQUITY AND LIABILITIES

Equity (see SOCIE)		
Share capital		100.0

Retained earnings		386.7
Exchange differences		50.8
Other reserves		239.4
	776.8	
NCI		283.3
Total equity		1,060.2
Non current liabilities	(115+69+35x1.42)	233.7
Current laibilities	(40+77+25x1.42)	152.5
Total equity and liabilities		1,446.4

Workings to the CSFP.

1 PPE		SAR'm	K'm
Given amounts:			
Jop			430
Kondwa			220
Zinzie	330X1.42		468.6
Adjustments:			
Net FV gain on Kondwa NA	Fully depreciated		0
Net FV gain on Zinzie NA:			

Gain at acquisition	(350-100-115-105	30	
Accum FV deprec	30/5x2	-12	
Net gain translated at closing rate		18x1.42	25.6
			1,144.2

2 Goodwill

On acquisition of Kondwa	(see part [a])	2.5
On acquisition of Zinzie	(see part [a])	10.7
		13.2

3 Investment in Joint Venture (Jopungu)

Cost of investment		20.0
Share of post acquisition reserves	(3-2)x50%	0.5
Share of unrealised profits	50%x1.5x50/150	-0.3
		20.3

SOLUTION TWO

(i) Award of Share options to Executive Directors

The grant of share options must be accounted for in accordance IFRS 2 Share Based Payments as they appear to fall within the definition of Equity Settled Share Based Payments. Munyinane Plc will acquire employee services over the three year performance period for which it will settle by awarding options on its shares.

IFRS 2 requires that the cost of a Share Based Payment (SBP) must be recognized as an expense over the performance where rights vest over a future period. In this case, the estimated total cost of the SBP will be spread over the three year performance period commencing 1.1.2025. The amount of expense to recognize each year will be based on the estimated total cost based on the options fair value on the grant date, that is on 1.10.2024. The accrual of the SBP expense in P/L will result in recognition of a SBP Reserve within Equity in the SFP.

The SBP reserve to report in Munyinane's SFP at 31.12.2025 will be computed as follows:

	K'000
Estimated total cost of SBP based on estimates at 31.12.2025	
(4-1) Directors X 600,000 options per Director X K0.5 per option	900
SBP Reserve at 31.12.2025 based on years of performance to date:	
900x1/3	300

Therefore, Munyinane must report a SBP reserve of K300,000 in its financial statements for the year to 31.12.2025. This amount will be presented within equity

In the P/L for the year to 31.12.2025, Munyinane will report a SBP expense equal to the increase for the year in the SPB Reserve. This being the first year, the opening SBP Reserve was nil and hence the increase in the SBP Reserve equals its balance at 31.12.2025. Therefore, Munyinane will report a SBP expense amounting to K300,0000 in its P/L for the year to 31.12.2025.

With regard to equity settled SBP, deferred tax assets will arise on tax deductible temporary differences as the entity will normally benefit from future tax relief when a cost equal to the intrinsic value of the options (market value less exercise price) becomes deductible for tax purposes in the period when the options are exercised. In accounting for deferred tax in earlier periods, the temporary difference (tax deductible) is computed as the currents intrinsic value of the options attributable to the performance period to date.
Arising from the above, the following are computations relating to deferred tax on the SARs for the year to 31.12.2025:

	Date(31.12) 2024 K'000	2025 k'000
Tax deductible Temporary Difference		
(Intrinsic value of the shares under optionsX1/3)	0	
(5.1-4.5)X(4-1)X600000X1/3		360
Deffered Tax Asset at 40%	0	144

A deffered tax asset of K144,000 will therefore be reported in Munyinane's SFP at 31.12.2025 in respect of the share options. The increase in the deferred tax asset of K144,000 will be credited to P/L for the y/e 31.12.2025 and presented within the income tax expense.

(ii) Award of Share Appreciation Rights (SARs) to the senior managers

The award of SARs must be accounted for in accordance IFRS 2 Share Based Payments as they appear to fall within the definition of Cash Settled Share Based Payments. Munyinane Plc will acquire employee services over the three year performance period for which it will settle by paying amounts of cash bonuses based on the change in the fair value of its equity shares.

IFRS 2 requires that the cost of a Share Based Payment (SBP) must be recognized as an expense over the performance period where rights vest over a future period. In this case, the estimated total cost of the SBP will primarily be spread over the three year performance period commencing 1.1.2025. The amount of expense to recognize each year will be based on the estimated total cost incorporating the current fair value of the equity instrument as by definition, the amount of cash payable will depend on a future share price. The accrual of the SBP expense in P/L will result in recognition of a SBP liability in the SFP.

The SBP liability to report in Munyinane's SFP at 31.12.2025 will be computed as follows:

	K'000
Estimated total cost of SBP based on estimates at 31.12.2025	
(6-2) Managers X200,000 Shares per Manger X K(5.1-4.6) per share	400
SBP liability at 31.12.2025 based on years of performance to date:	
400x1/3	133.3

Therefore, Munyinane must report a SBP liability of K133,333 in its financial statements for the year to 31.12.2025. This amount will be presented within non current liabilities (at least two years prior to settlement).

In the P/L for the year to 31.12.2025, Munyinane will report a SBP equal to the increase for the year in the SPB liability. This being the first year, the opening liability was nil and hence the increase in the liability equals the liability at 31.12.2025. Therefore, Munyinane will report a SBP expense amounting to K133,333 in its P/L for the year to 31.12.2025.

In accordance with IAS 12 Income Taxes, deferred tax amounts will arise due to temporary differences between the carrying amounts of the SPB liabilities reported in the SFP and amounts recognized for tax purposes (Tax Base amounts) at each reporting date. Costs relating to employee remuneration are generally tax deductible in the period when they fall due for payment to employees according to Munyinane's tax jurisdiction. This implies that tax base amounts are nil at points in time before the SBP vest and fall due.

Arising from the above, the following are computations relating to deferred tax on the SARs for the year to 31.12.2025:

	Date(31.12)	
	2024	2025
	K'000	k'000
Carrying amount of SBP liabity in SFP	0	133.3
Tax Base Amount	(0)	(0)
Temporary	0	133.3

The temporary difference of K133,3333 at 31.12.2025 is a tax deductible difference (will reduce taxable profits in future) and therefore gives a deferred tax asset of K53, 333.20 (ie 40%X133,333) to be reported in Munyinane's SFP at 31.12.2025. This gives a decrease in deferred tax liabilities (increase in deferred tax assets) equal to K53,333.20 as there was no opening deferred tax asset/liability at 1.1.2025. The increase in the deferred tax asset will be credited to P/L for the year as part of the income tax expense.

SOLUTION THREE

Investment in Madunusu Plc (Madunusu) Bonds

This is a debt instrument asset with predetermined contractual cash flow in terms of principal and interest and for which the business model is to realise the contractual cash flows. The asset will therefore be classified as amortised cost item for measurement under IFRS 9 Financial Instruments. The asset will therefore be initially measured at fair value (purchase price) including transaction costs. Subsequently, the asset will be measured at amortised cost using the effective interest rate method.

Also, the asset will be subject to the ECL impairment losses requirements of IFRS 9. As the credit worthiness of the counterparty has deteriorated, Kamonde must now measure the loss allowance by forecasting possible defaults over the entire remaining term to maturity.

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

Gross carrying amount at 31.12.2024:		K'm
Initial carrying amount at 1.1.2023	(2*0.95+0.2)	2.10
Finance income for the y/e 31.12.2023	10.41%*2.1	0.22
Cash received on 31.12.2023	12%*2*K1	-0.24
Carrying amount b/d 1.1.2024		2.08
Finance income for the y/e 31.12.2024	**10.41%*2.08**	**0.22**
Cash reived at 31.12.2024	12%*2*K1	-0.24
Gross carrying amount at 31.12.2024		**2.06**

Loss Allowance at 31.12.2024:		
Gross carrying amount at 31.12.2024		2.06
Expected recoverable amount	(Working below)	-2.01
Loss allowance at 31.12.2024		**0.05**

Working - Expected recoverable amount at 31.2.2024

Date	Expected cash flow	DF@10.41%	PV - K'm
31.12.2025	(0.24*0.75+0.2*0.2+0.18*0.05)	1.1041^-1	0.21
31.12.2026	(0.24*0.8+0.19*0.15+0.16*0.05+2*0.75+1.9*0.2+1.85*0.05)	1.1041^-2	1.81
Expected recoverable amount at 31.12.2024			**2.01**

Investment in Izeke Plc Shares

The investment in Izeke shares is an equity instrument asset not for trading for which an irrevocable election has been made to designate the asset as FVTOCI (IFRS 9). The asset will therefore initially be measured at fair value including transaction costs, translated at the spot exchange rate on the date of acquisition. Subsequently, the asset will be remeasure to fair value each reporting date with gains and losses reported in OCI. However, the effects of retranslation must be reported in profit or loss.

Amounts to report in the financial statements for the year to 31.12.2024 are as follows:

		SAR'm	Rate	K'm
Initial Carrying amount 1.1.2024	2.5*4+0.1	10.1	1.2	12.12
Remeasurement gain to report in OCI for the y/e 31.12.2024	12.4-10.1	2.3	1.32	3.036
Carrying amount at 31.12.2024 before retranslation		12.4		15.156
Exchange gain to report in PL		0		2.204
FV to report as carrying amount in SFP at 31.12.2024	3.1*4	12.4	1.4	17.36

In addition, Kamonde will report dividend income in PL amounting to K1.92 million (ie SAR1.5 translated at the spot rate on 1.10.2024 of K1.28/SAR).

SOLUTION FOUR

From the information in the question, the closure of the furniture making operation is a restructuring as defined in IAS 37 *Provisions, contingent liabilities and contingent assets* and, due to the timing of the decision, a provision for the closure costs will be required in the year ended 30 September 2023. Although the Standard says that a Board of directors' decision to close an operation is alone not sufficient to trigger a provision the other actions of the management, informing employees, customers and a press announcement indicate that this is an irreversible decision and that therefore there is an obligating event.

Commenting on each element in turn for both years:

(i) Factory and plant at 30 September 2023 – these assets cannot be classed as 'held-for-sale' as they are still in use (i.e. generating revenue) and therefore are not available for sale. Both assets will therefore continue to be depreciated.

Despite this, it does appear that the plant is impaired. Based on its carrying amount of K2·8 million an impairment charge of K2·3 million (K2·8 million – K0·5 million) would be required (subject to any further depreciation for the three months from July to September 2023). The expected gain on the sale of the factory cannot be recognised or used to offset the impairment charge on the plant. The impairment charge is not part of the restructuring provision, but should be reported with the depreciation charge for the year.

At 30 September 2024 – the realised profit on the disposal of the factory and any further loss on the disposal of the plant will both be reported in the income statement.

(ii) Redundancy and retraining costs at 30 September 2023 – a provision for the redundancy costs of K750,000 should be made, but the retraining costs relate to the ongoing actives of Zamfurniture and cannot be provided for.

At 30 September 2024 – the redundancy costs incurred during the year will be offset against the provision created last year.

Any under- or over-provision will be reported in the income statement. The retraining costs will be written off as they are incurred.

(iii) Trading losses

The losses to 30 September 2023 will be reported as part of the results for the year ended 30 September 2023. The expected losses from 1 October 2023 to the closure on 31 January 2024 cannot be provided in the year ended 30 September 2023 as they relate to ongoing activities and will therefore be reported as part of the results for the year ended 30 September 2024 as they are incurred.

It should also be considered whether the closure fulfils the definition of a discontinued operation in accordance with IFRS 5 *Non-current assets held for sale and discontinued operations*. As there is a co-ordinated plan to dispose of a separate major line of business (the furniture making operation is treated as an operating segment) this probably is a discontinued operation. However, the timing of the closure means that it is not a discontinued operation in the year ended 30 September 2023; rather it is likely that it will be such in the year ended 30 September 2024. Some commentators believe that this creates an anomalous situation in that most of the closure costs are reported in the year ended 30 September 2023 (as described above), but the closure itself is only identified and reported as a discontinued operation in the year ended 30 September 2024 (although the comparative figures for 2023 would then restate this as a discontinued operation).

(b) (i)Operating Segments and Reportable segments

IFRS 8 defines an operating segment as follows. An operating segment is a **component** of an entity:

- that engages in business activities from which it may **earn revenues and incur expenses** (including revenues and expenses relating to transactions with other components of the same entity)
- whose operating results are **reviewed regularly** by the entity's chief operating decision maker to make decisions about resources to be allocated to the segment and assess its performance and
- for which **discrete/seperate** financial information is available.

IFRS 8 requires an entity to report financial and descriptive information about its reportable segments. Reportable segments are operating segments or aggregations of operating segments that meet specified criteria:

- its reported revenue, from both external customers and intersegment sales or transfers, is 10 per cent or more of the combined revenue, internal and external, of all operating segments; or
- the absolute measure of its reported profit or loss is **10 per cent or more** of the greater, in absolute amount, of (i) the **combined reported profit** of all operating segments that did not report a loss and (ii) the **combined reported loss of all operating** segments that reported a loss; or
- its assets are 10 per cent or more of the combined assets of all operating segments.

If the total **external revenue** reported by operating segments constitutes less than **75 per cent** of the entity's revenue, additional operating segments must be identified as reportable segments (even if they do not meet the quantitative thresholds set out above) until at least 75 per cent of the entity's revenue is included in reportable segments.

(ii) At 31 March 2024 **three of the four operating** segments are **reportable operating segments**:

•The **Car parts and Cosmetics segments** meet the definition on **all size criteria**.

•The **software segment** is separately reported due to its **loss** being greater than **10% of total segments in profit** (2/12 or **16.7%).**

•The **electronics segment represents** 8.8% of revenue, the **loss is 8.3% of the 'control number'** of, in this case, operating segments in profit (1/12) and 9% of total assets

Although the electronics segment falls below the 10% thresholds it can **still be reported** as a separate operating segment **if management believes that information about the segment would be useful to users** of the financial statements. Alternatively, the group could consider **amalgamating** it with the software segment, providing the two operating segments have **similar economic characteristics** and share a **majority** of the 'aggregation' criteria, which, may be the case. Otherwise it would be disclosed in an 'All other segments' column.

SOLUTION FIVE

Report

To: Board of Directors , Luwaniko Plc Group
From: Financial Analyst
Date:
Subject: Comparative Analysis of the Financial Performance and Position of Nkhula and Yobe.

1. Introduction

At your request, this report provides a comparative analysis of the financial performance and position of Nkhula Limited and Yobe Limited with a view to recommending a suitable acquisition target.

The report is based on the financial ratios as highlighted in the appendix.

2. Financial Performance (Profitability)

2.1 Overall profitability

Based on the return on capital employed (ROCE), the overall profitability of Nkhula is much better than that of yobe. The ROCE of Nkhula at 6.4 is more than 4 times that of Yobe at only 1.5.

It is apparent that the overall profitability of Nkhula is better than that of Yobe mainly due to profit margins as analysed below.

2.2 Profit Margins

The net profit margin of Nkhula at 8.4% is several times better than that of Yobe at only 2.2%. This is partly due to Nkhula having better a GP of 48.4% compared with only 45.2% for Yobe.

With only a slight advantage on the GP margin, it must appear that yobe's source of a much higher net profit margin must be lower distribution and administrative expenses.

2.3 Asset Turnover

The two companies' efficiency in generating revenue from the available capital as measured by the asset turnover ratio is almost at the same level. However, Nkhula's asset turnover is slightly higher at 0.8 compared with Yobe's at 0.7.

3. Liquidity and Working Capital Management

3.1 Overall liquidity

Both companies appear to be more than able to settle current liabilities as they fall due as assessed by the current and the quick ratios. Nkhula and Yobe current ratios stand at 4.6:1 and 3.9:1 respectively. Nkhula's quick ratio stands at 3.4:1 compared with that of Yobe at 2.5:1.

It should be necessary to find out the industry average for the ratios as the companies' current and quick ratios exceed the benchmarks of 2:1 and 1:1 respectively by big margins. This could be a sign of excessive working capital.

3.2 Working Capital Management Efficiency

Nkhula's better overall liquidity appears to be supported by better inventory, receivables and payables days as highlighted in the appendix. However, it is important to consider the industry average position. For instance, Yobe's lower payables days of 34.17 days could be better than Nkhula's position of 45.86 days if the industry average is below 34.17 days.

4. Gearing (Solvency)

Yobe's gearing level is much lower than that of Nkhula as measured by the gearing ratio. Yobe and Nkhula's gearing ratios were 13.4% and 33.6% respectively. Both companies therefore had gearing levels well below the benchmark of 50%.

However, Yobe's lower levels of profitability negatively impacted on its interest cover ratio at only 1.4 times compared with desired levels of at least 2.5 times. Though better than that of Yobe, Nkhula's interest cover ratio at 2.3 times also slightly falls short of the benchmark of 2.5 times.

5. Conclusion

Though both companies appear to have similar levels of gearing, Nkhula is more profitable and has better liquidity.

6. Recommendation

Based on the analysis in sections 2 to 4 and the conclusion in section 5 above, I recommend that Luwaniko acquires Nkhula.

Appendix to the report – Financial Ratios

Area/Ratio	Formula	Nkhula	Yobe
Profitability			
ROCE	PBITx100/CE	6.4	1.5
Net profit margin	PBITx100/Revenue	8.38	2.19
Asset turnover	Revenue/CE	0.77	0.69
GP margin	GPx100/Revenue	48.4	45.2
Liquidity and Working Capital management			
Current ratio	Current assets/Current liablities	4.6:1	3.9:1
Quick ratio	Current assets less inventory/Current liablities	3.4:1	2.5:1
Inventory days	Inventoryx365/cost of sales	89.4	108.4
Receivables days	Receivablesx365/revenue	97.7	104.1
Payables days	Payablesx365/cost of sales	45.9	34.2
Gearing			
Gearing ratio	NCLx100/CE	33.6	13.4
Interest cover	PBIT/Finance costs	2.3	1.4

Workings/Adjusted FS amounts:

W1. Nkhula adjusted PBIT			K'000
Given amount	(27375+20625)		48,000.0
Notional rent expense		-	1,500.0
Adjusted PBIT			46,500.0

W2. Nkhula adjusted CE

Given amount	(483000+243030)		726030
Accumulated notional rent	(1500*2)		-3000
Adjusted CE			723,030.0

W3. Yobe adjusted CE

Given Equity			553,800.0
Reverse accumulated lease rental expense	2000*2		4,000.0
Charge accumulated amortisation of ROUA (W.)	7581.6/5*2		- 3,032.6
Charge accumulated lease finance cost (W.)			- 1,392.1
Adjusted equity			553,375.2
Given NCL		80,610.0	
Add total lease liabilities at 31.12.2024		4,973.7	85,583.70
Adjusted CE at 31.12.2024			**638,958.9**

W4. Yobe lease amounts

Initial lease liability/ROUA 1.1.2023	K2000*(1.1^-1+1.1^-2+1.1^-3+1.1^-4+1.1^-5)	7,581.6
Finance cost y/e 31.12.2023	10%*7581.6	758.2
Cash paid 31.12.2023		- 2,000.0
Lease liability at 31.12.2023		6,339.7
Finance cost y/e 31.12.2024	10%*6339.7	634.0
Cash paid 31.12.2024		- 2,000.0
Lease liability at 31.12.2024		**4,973.7**

W5. Yobe adjusted PBIT

Given PBIT	(3038+6188)	9,226.0

Reversal of rental expense			2,000.0
Amortisation of ROUA	7581.6/5	-	1,516.3
Adjusted PBIT			**9,709.7**

W5. Yobe adjusted finance costs - y/e 31.12.2024

Given amount	6,188.0
Finance costs on lease liability	634.0
Adjusted finance cost y/e 31.12.2024	6,822.0

END OF SOLUTIONS

Zambia Institute of Chartered Accountants

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA 3.2: ADVANCED AUDIT AND ASSURANCE

THURSDAY 12 DECEMBER 2024

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

INSTRUCTIONS TO CANDIDATES

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

2. This paper is divided into TWO (2) sections:
Section A: One (1) Compulsory scenario question.
Section B: Four (4) Optional Questions. Attempt any Three (3) questions.

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

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

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

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

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

8. Present legible and tidy work.

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

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

SECTION A

This question is compulsory and must be attempted.

<u>QUESTION ONE – COMPULSORY</u>

Your firm of chartered accountants is auditor of New Technologies Ltd a company that is in the chemical industry manufacturing agricultural chemicals. The company exports 20% of its products to neighboring countries and sells the rest of its production locally through various agro dealers. There is a case before the courts in one (1) of the countries where New Technologies Ltd exports its products. A chemical company, supplying chemicals manufactured by New Technologies Ltd, was sued for supplying hazardous chemicals not meeting World Health Organizations standards.

There is increased regulation for the production of agricultural chemicals to ensure that only products that do not cause harm to people and the environment are manufactured. Many countries including the country to which New Technologies Ltd exports chemicals have introduced strict regulations on the quality of agricultural chemicals that can be sold in their countries. It is a requirement that agricultural chemical producers should meet the set standards by the World Health Organization. Arising from the new regulations, New Technologies Ltd invested substantial amounts of money in research and development to manufacture chemicals that meet the required standards.

New Technologies Ltd has an internal audit department headed by the Chief Internal Auditor who reports to the Finance Director and has four (4) auditors under him. The annual internal audit plan is required to be discussed and agreed with the Finance Director who also clears all internal audit reports before circulation. The main duties of the internal audit department include checking the adequacy of the internal controls of the company and conducting operational audits for compliance with procedures.

The audit of the financial statements of New Technologies Ltd for the year ended 31 December 2023 is nearing completion. You are the Audit Manager on the audit of the financial statements of New Technologies Ltd and the following information arose from your review of the audit working papers:

1. The audit team was provided with the draft financial statements by management. A review of the detailed profit or loss account shows an amount of K2.1 million charged to profit as development costs. The statement of financial position contains intangible assets comprising research costs for a new product of K2.7 million and development costs amounting to K1.32 million for a product expected to be on the market in the next two (2) years. No audit work has been done on these amounts. Total assets of New Technologies Ltd in the statement of financial position at the period end amount to K30 million.

   Management provided the audit team with the schedule showing the opening balance for development costs and the charge for the year. A cash flow statement was prepared showing the expected income and expenditure for the product whose development costs have been capitalized in the current year. The cash flow was prepared based on the budgeted figures for the development of the new project.

2. A review of the work performed on going concern suggests that New Technologies Ltd is not a going concern. Management prepared the financial statements on a historical cost basis and included a note in the financial statements explaining the use of the going concern basis despite there being doubts on the ability of the company as a going concern. It is your view that the alternative basis of preparing the financial statements should have been used to prepare the financial statements. The Audit Senior suggested that an unmodified opinion should be issued on account of adequate disclosure of material uncertainty in the financial statements by management of New Technologies Ltd.

3. The Audit Senior made a recommendation that during the audit for the next financial statements, the firm should consider using the services of internal audit for the purpose of the audit. This will enable the audit to be performed faster and it will also reduce audit costs.

4. It was observed at the planning stage of the audit that risk assessment is poor and evidence during the audit showed that internal controls were not effective as earlier thought of. The audit team recorded in the working papers the internal control weaknesses observed during the audit with the intention that they should be reported to management at the end of the audit.

The request to Management to have the financial statements of New Technologies Ltd to be re-stated and prepared on the alternative basis was declined. You intend to communicate this matter to Management and those charged with governance and discuss the implications on the audit opinion and to seek their approval that financial statements should be restated to the alternative basis.

Required:

(a) Discuss the audit risk with regards laws and regulations Ltd and explain the consequences of non-compliance with laws by New Technologies Ltd. (6 marks)

(b) Discuss the possible use of internal audit in the audit of the financial statements of New Technologies Ltd. (6 marks)

(c) (i) Suggest, with justification, an appropriate audit opinion taking into consideration items 1 and 2 in the scenario and assuming Management refuses to restate the financial statements. (6 marks)

(ii) Discuss the impact on the audit report if the alternative basis of preparing financial statements was used by New Technologies Ltd (2 marks)

(iii) Describe the communication by the audit team, to any four (4) concerned parties, regarding New Technologies Ltd not being a going concern. (8 marks)

(d) (i) Describe the nature and content of communication that will be made to management arising from internal control weaknesses observed during the audit of the financial statements of New Technologies Ltd. (4 marks)

(ii) Describe four (4) audit procedures that should be performed in the audit of intangible assets in the audit of the financial statements of New Technologies Ltd. (8 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt any THREE (3) questions.

<u>QUESTION TWO</u>

Gas Manufacturing Plc. is a subsidiary of a UK parent company involved in the manufacturing of industrial and domestic gases in Zambia. The company was incorporated in the third quarter of 2022 and commenced production in January 2023.

In January 2023 the company put to tender the offer of audit services for the next three (3) years commencing the financial year ended 31 December 2023 during which the first financial statements will be required to be audited. The timetable for the finalization of financial statements for the subsidiary companies requires that the statutory audits should be completed and audit reports signed by 14 February 2024 in readiness for the meeting of the board of directors on 20 February 2024. Gas Manufacturing Plc. is required to prepare and submit monthly management accounts to the parent company. Half way in the financial year, the company will be required to prepare half year interim financial statements which will require to be reviewed by the statutory auditors and a report of the review submitted.

The following additional information relates to Gas Manufacturing Plc.:

1. There is an internal audit department which reports to the audit committee of the board of directors which, among other functions, conducts tests of the internal controls of the company and makes recommendations for improvements.

2. The interim financial statements are prepared in accordance with the Company's Act 1994 and are prepared in accordance with International Financial Reporting Standards (IFRSs).

3. The company has outlets in Kitwe and Ndola where it has storage tanks for raw materials and finished products. The company conducts inventory count on a monthly basis.

4. The company is highly regulated and subject to environmental laws as well as safety laws.

5. Inventory count attended by staff in the internal audit department will be conducted at the end of June 2023 and on 31 December 2023 for the annual financial statements.

You work for Chris & Associates as Audit Manager and you are responsible for client management and acceptance. Chris & Associates is a four (4) partner firm with the Head Office located in Lusaka and another Office located in Ndola. The firm is specialized in the audit of financial and trading companies and it is considering diversifying into industries that it currently does not audit. The majority of the firm's clients have 31 December as their year-end and most of the staff is very busy during the first quarter of each year. You do not know the management and directors of Gas Manufacturing Plc.

Your firm responded to the advertisement for the offer of audit services to Gas Manufacturing Plc. and after evaluations, your firm was nominated to be auditor of Gas Manufacturing Plc. Assume that the date today is 14 February 2023.

Required:

(a) Describe the matters that should be considered in deciding to bid for the offer of audit services to Gas Manufacturing Plc. (6 marks)

(b) Discuss the issues that you will consider in accepting nomination as auditors of Gas Manufacturing Plc. (4 marks)

(c) Describe five (5) matters that should be included in the audit plan that will enable the audit team to conduct a review of the interim financial statements and perform the year-end audit for the financial statements for the year ended 31 December 2023 within the agreed client timetable. (10 marks)

[Total: 20 Marks]

QUESTION THREE

Mulungushi Plc. is a company that is in the production of a wide range of stock-feed. The company has been in existence for the past ten (10) years and sells its feedstock under a brand name of 'Best Feed'. The milling plant is old and the company faces frequent breakdowns resulting in the company failing to meet its production targets. The company sells its products through agents with whom it has contracts that they will only deal in 'Best Feed' products. Most of the outlets have stock-outs due to erratic supplies and this has resulted in some of the outlets incurring significant reductions in revenue. Mulungushi Plc. has bulk storage facilities for both raw materials and finished goods and conducts inventory count at the end of each financial year. The feed produced by Mulungushi Plc. has a six (6) month lifespan after which it is attacked by moths and cannot be fed to animals.

Mulungushi Plc. has an internal audit department headed by the Chief Internal Auditor. The department reports to the Audit Committee and among other duties it is responsible for risk assessments and evaluation of the internal controls in the company. Risk assessments are conducted in conjunction with various departments and a risk register is maintained. The extent of fraud in Mulungushi Plc. is high and during the year under review, the internal audit department conducted five (5) fraud investigations all of which resulted in convictions of the staff involved and their ultimate dismissal from employment. It is the policy of the company to share all internal audit reports with the internal auditors and you have received all the reports for the current year.

In an effort to boost sales, the Board of Directors of Mulungushi Plc. introduced a performance based scheme for management. Management team members will receive a production bonus upon meeting agreed profitability levels. During the financial year ended 31 December 2023 there has been a significant increase in profitability compared to the previous financial year. The increase is not supported by any increase in the volume of sales but management explained that there was a significant price increase during the year.

Your firm of Chartered Accountants has been appointed auditor of Mulungushi Plc. after the contract for audit services with the previous auditors was terminated before the end of the contract. The Engagement Partner requested you to consider an appropriate audit approach to use after evaluation of the results of the risk assessment that will be conducted at the planning stage of the audit.

The audit team was provided with the previous year financial statements which contain comparative figures and it is a requirement that the current year figures should contain comparative figures. The draft financial statements of Mulungushi Plc. contain a revenue figure of K7.5 million. Inventory is considered to have a higher risk of misstatements than the other components of the financial statements.

Required:

(a) Evaluate how the work of internal audit of Mulungushi Plc. will impact the conduct of the audit of financial statements. (6 marks)

(b) Suggest, with justification, suitable materiality and performance materiality levels to use in the audit of the financial statements of Mulungushi Plc. (4 marks)

(c) Describe five (5) audit risks in Mulungushi Plc. and discuss how they will impact the audit of the financial statements of Mulungushi Plc. (10 marks)

[Total: 20 Marks]

QUESTION FOUR

(a) You are the Audit Senior in the audit of the financial statements of Magoye Ltd for the year ended 31 March 2024. Magoye Ltd deals in the importation and sales of a range of motor vehicle spares.

The audit is at the final stage and there is a disagreement with management concerning the accounting treatment of obsolete inventory valued at K1.854 million. This involves inventory that is slow moving and the bulk of which has not moved in the last three (3) years. This inventory was identified during the year-end inventory count. Inquiries on why the inventory has not moved revealed that it relates to spares of a type of heavy duty trucks that are no longer in use. Efforts to sell the inventory at discounted prices have not succeeded. Total assets and profit after tax in the financial statements amount to K30.9 million and K21.0 million respectively.

Management declined the recommendation to write off the inventory arguing that this would result in the company recording a trading loss which will not go well with the shareholders. Your view is that an adverse opinion should be issued but management disagrees with this and is threatening to terminate your contract for audit services. Magoye Ltd has a Board of Directors and an audit committee that reviews financial statements on behalf of the board.

Required:

(i) Discuss how you will deal with the matter of disagreement in the audit of the financial statements of Magoye Ltd. (4 marks)

(ii) Suggest a suitable opinion for the audit of the financial statements of Magoye Ltd. (4 marks)

(b) Your firm, Victor & Associates, is auditor of Limpopo Ltd and you are responsible for the audit of the financial statements for the year ended 31 December 2023. Limpopo Ltd is in the agricultural industry and is involved in ranching, cultivation and processing of wheat.

At the year end, Limpopo Ltd has growing maize, significant work in progress and a large stock of various categories of livestock. The valuation of inventory and work in progress was done by G & S Consultants a company of consultants engaged by Limpopo Ltd. G & S Consultants has valued inventory of Limpopo Ltd in the past. The audit team performed audit procedures on the objectivity of G & S Consultants and concluded that the company had the necessary skills and competences to value inventory and decided to rely on the valuation carried out by G & S Consultants.

Based on the audited financial statements for the year ended 31 December 2023, an institutional investor bought debentures worth K20 million in Limpopo Ltd. The company needed the funds for the acquisition of a new milling plant. The institutional investor intended to acquire the company after a due diligence was conducted. Early in 2024 a due diligence was conducted and it revealed that the profit of Limpopo Ltd for 2023 was overstated by K12 million and this was attributed to an overvaluation of inventory at the year end. The shareholders of Limpopo Ltd are not happy that Victor & Associates issued an unmodified audit opinion when the financial statements were materially misstated. The statement of financial position of Limpopo Ltd has an amount of K2.6 million being a loan that the company obtained from its bankers three (3) years ago.

Following the report of the due diligence and the poor liquidity of Limpopo Ltd the institutional investor made a decision not to go ahead with the acquisition of Limpopo Ltd and risks losing the initial investment in debentures of K20 million. Limpopo Ltd filed for voluntary liquidation and Victor & Associates face the risk of litigation for professional negligence.

Required:

(i) Discuss the impact on the audit of relying on the work of G & S Consultants in the audit of the financial statements of Limpopo Ltd by Victor & Associates. (4 marks)

(ii) Discuss the exposure to litigation for professional negligence faced by Victor & Associates. (8 marks)

[Total: 20 Marks]

QUESTION FIVE

(a) Luangwa Communications Inc. is a foreign based company which is in negotiations with Desai Ltd with the intention of taking over Desai Ltd.

Desai Ltd is a family owned company in the telecommunication sector which has been operating in Zambia for the past ten (10) years. A review of the financial statements of Desai Ltd and information on its website indicates that the company has 30% of the telecommunication market share in Zambia.

Desai Ltd is currently in negotiations with two (2) new mining houses for the provision of internet services to them and a memorandum of understanding was recently signed and entered into with one(1) of these mining houses. A summary of the performance indicator of Desai Ltd for the last four (4) years shows a growth in profitability and revenue of 10% and the company boasts of having highly skilled manpower with a good staff retention record.

Luangwa Communications Inc. would like to enter the Zambian telecommunication market and is of the view that an acquisition of an existing market player would be the best strategy to take. Luangwa Communications Inc. hopes to increase its market share in this industry to 50% within a period of five (5) years. Your firm has been approached by Luangwa Communications Inc. for it to conduct a due diligence assignment whose results will help the company seal the negotiations with Desai Ltd.

Required:

(i) Explain the meaning of due diligence assignments and describe the need for due diligence using the information in the scenario. (4 marks)

(ii) Describe the matters that your firm will consider in performing a due diligence assignment for Luangwa Communications Inc. clearly explaining the matters you will report on. (6 marks)

(b) Your firm of chartered accountants has been auditor of Chipangali Ltd for the past five (5) years. The engagement letter written at the time of commencement of audit services indicates that the purpose of the engagement is for the firm to offer assurance services on the company's financial statements.

During the year under review the company obtained a listing on the Lusaka Securities Exchange (LuSE). The founders of the company sold a majority of the shares and retained only 5% of the shares. The company went through a restructuring process which resulted in a complete change in management. Furthermore, the terms of reference of the assurance services changed to include the offer of non-audit services by the firm involving valuation of financial instruments.

During the audit of the financial statements for the year ended 31 December 2023 the audit team faced problems in obtaining evidence. There were many instances of auditors not being able to obtain explanations on matters of concern observed during the audit. At the planning stage of the audit, the audit team concluded that the internal controls were operating satisfactorily and this was confirmed by the results of the tests of controls performed. During the substantive audit stage of the audit there were significant omissions in the operating effectiveness of internal controls.

Required:

(i) Discuss how the changes in Chipangali Ltd will impact on the terms of the engagement and state how they will be implemented. (4 marks)

(ii) Discuss three (3) matters of concern in the audit of the financial statements of Chipangali Ltd. for the year ended 31 December 2023 and suggest how they will be dealt with during the audit. (6 marks)

[Total: 20 Marks]

END OF PAPER

CA 3.2 ADVANCED AUDIT AND ASSURANCE SUGGESTED SOLUTIONS

SOLUTION ONE

(a) Audit risk with regards laws and regulations:
The audit risk with regards laws & regulations is that the financial statements may be misstated on account of non-compliance with laws & regulations by New Technologies Ltd.

This can arise in any of the following three ways:

1. New Technology Ltd not complying with the applicable local regulations and WHO regulations. Noncompliance may result in the company suffering penalties to be paid. In the event of non-compliance the company may not accrue the necessary provisions in the financial statements resulting in provisions being understated resulting in the financial statement being misstated.
2. The company runs the risk of being sued by its customers for supplying chemical that may be hazardous to humans. This could result in the company being charged to compensate the injured parties. If any litigation is still not concluded at the period end, there would be need to accrue and make a provision. There could be a risk that the company will not make the necessary provisions which will result in an understatement of provisions in the financial statements.
3. Litigation against New Technologies Ltd could result in heavy penalties being levied and in extreme cases the operating license being withdrawn. Any such

action could bring into doubt the ability of the company as a going concern which has an implication on the basis of the preparation of the financial statements.

(b) Possible use of internal audit in the audit of the financial statements of New Technologies Ltd:

There are two ways in which external auditors may use internal audit in the conduct of audits of the financial statements of a client company. External auditors may want to:

- Rely on the work done by internal audit if it meets the audit objective of the external auditor or
- The auditors may seek direct assistance of the internal auditors.

Considering the information in the scenario the following is advised:

The objectivity of the internal audit department of New Technologies Ltd is questionable because of the following reasons:

- The Chief Internal Auditor reports to the Finance Director of New Technologies Ltd and so could be influenced by him. The Finance Director is head of the department that is subject to internal audits and the Chief Internal Auditor may not want to cross paths with his boss. This brings into doubt the reliability of the work done by the internal auditors.
- The audit plan of the internal audit department has to be cleared by the Finance Director before it can be operationalized. Furthermore, it may be that the risk areas relevant to the audit of the financial statements may not have been subject to the work of internal audit.

In view of the above points it is questionable the extent to which the work of internal audit department of New Technologies Ltd could have relevance to the external audit. Furthermore, the influence of the Finance Director over the work of internal audit may cast doubt on the reliability of the work. It would not be advisable for the external auditors of New Technologies Ltd to place reliance on the work of the internal audit depart in gathering evidence.

As an alternative, the statutory auditors may wish to seek direct assistance of the internal audit department in gathering evidence on the audit. This would be appropriate if management & those charged with governance agree to it. In this situation the internal auditors are requested to perform procedures that otherwise would have been done by the external auditors under the supervision of the external auditors.

Conclusion:
It is recommended that the auditors seek direct assistance of the internal auditors of New Technologies Ltd rather than place reliance on the work of the internal auditors.

(c) (i) Suggested audit opinion:
With regards note 1 in the question, the charge of K2.1million being research costs is appropriately debited and charged to the profit or loss account. With regards the amounts appearing in the statement of financial position and classified as research costs for a new product (K2.7 million) and development costs amounting to K1.32million:

- The research costs should have been written off to profit or loss for the current year.
- With regards development costs the amount should only be capitalized if it meets the conditions set out in IAS 37

The amount of research costs capitalized at K2.7million is material to total assets at 9% and this has an impact on the audit opinion. The amount will impact the profit for the year which will be overstated by the amount capitalized and not written off to profit or loss. The suggestion that an unmodified opinion by the Audit Senior is not correct.

Furthermore, the fact that the audit team concluded that New Technologies Ltd is not a going concern, and has prepared financial statements on a going concern basis is not appropriate. The note included in the financial statements by management concerning the material uncertainty will have no effect on the final decision on the opinion because the company is not a going concern.

The opinion suitable here is an adverse opinion because of the uncorrected misstatement and the use of an inappropriate basis for the preparation of the financial statements.

(ii) Impact on audit if alternative basis of preparing financial statements used:
If management amends the financial statements correcting the amount of K2.7million capitalized and charging it against profit it means this will not be considered in deciding on the opinion.

The fact that the company is not a going concern and the financial statements are prepared on the alternative basis, the opinion will be unmodified because the basis of preparing the financial statements is correct on the break up basis.

(iii) Communication by audit team on going concern matters:

1. **To the rest of the audit team:**
   During the planning and conduct of the audit, the audit team should be requested to be skeptical and be alert for any signs of going concern of a client company. If during the audit there are indications of going concern problems these must be shared among the audit team members:
2. **To senior people in the firm:**
   Because of the seriousness of the implications when a client company is not a going concern, this matter should be communicated to the senior people in the audit firm. The Audit Senior will need to communicate this to the Audit Manager and ultimately the Engagement Partner who is responsible for the audit opinion should be made aware.
3. **To management:**
   The management will require to be informed of the fact that in the view of the auditors the company is not a going concern. The views of management concerning the matter of concern must be obtained.

   Management should be informed of the effect on the preparation of the financial statements on account of it not being a going concern and the impact on the audit opinion.
4. **To those charged with governance:**

The fact that the company is considered not to be a going concern should be communicated to those charged with governance. The consequences on the financial statements and the opinion should be communicated to them.

5. **To the shareholders:**
   The fact that the company is not a going concern will impact the audit opinion. The shareholders will be communicated to through the audit report which will be modified and the reasons for modification will be explained in basis for adverse opinion paragraph.

(d) (i) Nature of communication to management on internal control weaknesses:
The management letter is used to communicate matters pertaining to internal control weaknesses observed during the audit. These internal control weaknesses will be recorded in the audit working papers.

At the end of the audit, all internal control weaknesses observed during the audit will be consolidated and communicated to management of New Technologies Ltd under cover of a management letter or letter of weakness as referred to at times. The management letter is meant for internal use by management and this will be expressly stated in the letter and is not meant for use by third parties.

The letter will contain the following information on each observation made:

Details of the observation – detailing the weakness as observed by the audit team.

Implication of the weakness – explaining the consequences of the weakness to the company

Recommendations – to remedy the weakness recommendations for improvement will be made and discussed with management.

Response of management – the draft management letter will be discussed with responsible client staff and management's responses will be obtained and incorporated in the final management letter.

(ii) Audit Procedures for intangible assets:
The intangible asset in the financial statements of New Technologies Ltd relates to the research costs and development costs of a new product that have been capitalized. The accounting for development costs is required to be in accordance with the provisions of IAS 38 *Intangible assets.*

The following audit procedures should be performed:

1. Obtain a breakdown of the development costs included in the balance in the statement of financial position if it relates to more than one product.
2. Inspect the accounting records and confirm that:
   - Project is clearly defined and that related costs are shown separately.

    - Expenditure is identifiable by the related invoices
3. Review the budgeted revenues and costs by examining results to date, the production forecasts and through discussions with management.
4. Review the future cash flows against capability of the company has resources to complete the project of developing the new product.
5. For development costs brought forward evaluate and confirm that criteria for capitalization are still valid.
6. Inquire from management on why the research costs which should be charged to profit or loss have been capitalized. If the costs do not meet the criteria for capitalization as development costs request management to amend the financial statements.

SOLUTION TWO

(a) Matters to consider in considering bidding for the offer of audit services:

1. It will be important to establish the true ownership of Gas Chemicals Ltd in view of the fact this will be the first time that its financial statements will be audited by external auditors. Furthermore, there will be need to get references of the management team since the firm will most likely not know the management. The firm will wish to protect itself from dealing with a company that could be involved on money laundering.
2. The firm should ensure that there are no ethical matters that would prevent it from conducting audits. If there are, then there is no point in bidding unless suitable safeguards are put in place.
3. Consideration of whether the firm has the necessary resources to undertake the adult and this includes money and necessary skills and competences by the staff in the firm.
4. Consideration of whether the timetable for the audit and other services will fit with that of the firm.
5. A need for specialist skills should be evaluated so that the firm either arranges training of staff or engages an expert and establish if experts are available.

(b) Matters to consider in accepting nomination:

ISQC 1 *Quality control for firms that perform audits and reviews of financial statements, and other assurance related services engagements* gives guidelines for client acceptance. It requires that once nominated as auditor of client companies and accepting appointment the firm should consider specific matters. Chris & Associates should consider the following matters:

1. That there are no ethical matters of concern and if there are any, decline appointment unless suitable safeguards could be put in place. The issue of the partner who bought shares after the firm submitted a bid should be considered and safeguards put in place. The partner should sell the shares failure to which the firm will have a self-interest threat. If no safeguard can be put in place the firm should decline appointment.
2. The firm should reconsider the availability of necessary human and financial resources to enable it conduct the audit. If these are lacking the firm should decline appointment.
3. The firm should consider whether it is professionally qualified to undertake the audit and that there are no legal or technical barriers to accepting appointment.
4. Since the management and directors of Gas Manufacturing Plc. are not known to the audit firm, references of the directors should be obtained.

(c) Audit plan for the audit of the financial statements of Gas Manufacturing Ltd:

The audit plan will aim at implementing the audit strategy with a view to conduct a quality audit meeting the audit objective and the requirements of Gas Manufacturing Plc.

1. The audit plan should include a meeting with the management of Gas Manufacturing Plc. to discuss its expectation of the audit this being the first time that the company's financial statements will be audited. This will ensue that there will be no misunderstandings between the firm and the company.
2. The audit plan should contain details of the work that will be required for the review assignment of the interim financial statements and the nature of report expected
3. The plan should have an outline of how the firm will meet the client requirements in terms of meeting the reporting timetable.
4. Details of the assignment of suitable staff with experience to audit a client for the first time and possessing the competences required for doing so. In case of the need to engage an auditor expert, identification of the expert and defining the terms of reference and work that the expert will carry out.
5. The extent of the use of internal audit department considering that the company has an internal audit department. Consideration of whether direct assistance of internal audit will be sought or reliance on the work of internal audit.
6. The extent of the use of the Ndola office of the firm to attend inventory count on behalf of the Lusaka office.
7. Details of any audit work that could be done at the time of reviewing the interim financial statements. The firm could consider conducting an interim audit in order to reduce the amount of time that will be required at the final audit stage and be able to complete the audit work within the required time. Details of how this will be done should be included in the audit plan.
8. Consideration of the work that will be done at the interim and final audit stages for the audit team to follow.

SOLUTION THREE

(a) How the work of internal audit may impact the audit of the financial statements of Mulungushi Plc.:

Reliance on internal audit:
The external auditors will require to evaluate the effectiveness of the internal audit department of Mulungushi Plc. This will lead the auditors in deciding on the extent of reliance that can be put in the work of internal audit if it has any relevance on the audit objectives. The auditors will also decide if the audit team would like to seek direct assistance of the internal auditors. This will impact the nature and extent of audit procedures that will be done by the audit team.

Tests of the effectiveness of the internal controls:
Auditors may wish to place reliance on internal controls of Mulungushi Plc. in the performance of the audit. The work done by the internal audit department with regards the effectiveness of internal controls is for management use. In view of the fact that there is a high risk if the auditors rely on ineffective internal controls in deciding on the nature

and extent of audit procedures, they should not rely on results of the tests carried out by the internal audit department.

The audit will require to gain an understanding of the control activities in Mulungushi Plc. and perform tests of controls whose results will enable the team decide the extent of reliance on the internal controls in conducting the audit.

Risk assessment tests conducted by the internal auditors.
Risk assessment from the point of view of the auditors is to some extent judgmental in identifying risks that could result in the misstatement of financial statements. The risk assessments done by the internal audit department are likely to be the identification of business risks and suggesting suitable controls that must be out in place by management.

It is therefore, not appropriate for the audit team in the audit of the financial statements of Mulungushi Plc. to rely on risk assessments conducted by the internal audit department. The auditors should perform risk assessments at the planning stage and identify the audit risks and respond to them appropriately.

(b) Suitable materiality level:
The determination of the materiality level to be used in the audit of the financial statements of Mulungushi Plc. will take into consideration a number of factors. As a starting point, in view of the fact that profitability is an important factor in investment decisions and that it has a direct impact on profitability materiality will be set as a percentage of revenue.

For example 1% of the sales revenue figure of K7.5 million which amounts to K75 000. Considering the fact that fraud cases in Mulungushi Plc. are high and are on the increase this may necessitate a reduction in the materiality figure to say K50 000

Having computed materiality for the financial statements as a whole there is need to compute performance materiality. This is set at a figure lower than the materiality for the financial statements as a whole say at an amount of K40 000

The risk of inventory being misstated appears high in Mulungushi Plc. This is confirmed because of the many cases of fraud involving inventory theft and the write off of inventory due to obsolescence. This suggests that inventory has a higher risk of misstatement compared to that of the other items in the financial statements. For that reason a separate materiality level for inventory will be set at lower than the materiality level for the financial statements as a whole. A materiality level of K25 000 could be set with a performance materiality level for inventory of K21 000.

(c) Risks in Mulungushi Plc. and the impact on the financial statements:

	Risks in Mulungushi Plc.:	How risk impacts financial statements
1	Old milling plant could affect the ability of the company to meet its production targets. This may result in the	The shortage of feed could lead to the company facing liquidity problems and increased stock-outs could have an impact on the ability of Mulungushi Plc. as a going concern.

	company failure to meet the demand of customers who may opt to buy other readily available brands of feed.	
2	Old production equipment could result in the misstatement of the financial statements. The equipment could be carried at a higher value than its recoverable amount. The plant required an impairment review to be carried out.	Tangible non-current assets will be overstated and profit for the year also overstated on account of there being no impairment review conducted.
3	The existence of fraud in Mulungushi Plc. is a risk which could lead into the loss of company assets. The fraud appears to be that of misappropriating company assets.	The financial statements will be misstated particularly inventory which may not represent the inventory that exists in view of any efforts to try and conceal the fraud.
4	The introduction of a performance based pay scheme for management could result in fraudulent financial reporting leading to the misstatement of financial statements.	Sales revenue and any accounting estimates could be an area where this could be done. There could be cut off problems where revenue meant for following year could be included in the current year and also an understatement of any accounting estimates as a result of management bias to achieve the desired results.
5	The comparative figures contained in the current financial statements could result in a misstatement of the current financial statements.	This could be done by using different figures as comparative figures which may make comparisons with the current year figures appear favorable.
6	Expired feed which cannot be fed to animals	This will impact the valuation of inventory which may be valued at a higher amount than the net realizable value.

SOLUTION FOUR

(a) (i) Dealing with the disagreement in the audit of the financial statements of Magoye Ltd:

The disagreement on the provision for obsolesces and the write off of inventory is with management. The amount involved is material and will impact on the audit opinion that will be reached.

In view of the refusal by management to write off the obsolete inventory the audit team should take the following steps:

1. The audit team through the Audit Senior should bring the matter to the attention of the most senior person in the organization and seek their indulgence in resolving the matter. Most likely this will be the Chief Executive Officer of Magoye Ltd.
2. If the matter remains unresolved, the matter should be brought to the attention of those charged with governance namely the audit committee. The committee may require an explanation as to why management is not willing to write off the value of the inventory in question.

3. The matter should be brought to the attention of the senior people in the firm initially to the attention of the Audit Manager. The senior people will attempt to get management do the right thing. The Audit Manager will bring the matter to the attention of the Engagement Partner who has overall responsibility of the audit.
4. If all efforts to get management amend the financial statements fail the team should consider the materiality of the matter and the impact it has on the financial statements. If the matter is considered material it will result in the modification of the audit opinion which fact should be brought to the attention of management and those charged with governance.

(ii) Suggestion of suitable opinion:

The matters that require to be considered in deciding the opinion following the disagreement on accounting treatment of obsolete inventory is a consideration of the materiality of the matter. If the matter is not material, then it has no impact and an unmodified opinion will be issued.

If the matter is material, then it should be subjected to the next two criteria namely whether sufficient appropriate audit evidence has been obtained and the pervasiveness of the matter,

In this case, the audit team attended the inventory count at which the obsolete inventory was detected.

If the natter is considered material and not pervasive to the financial statements then a qualified opinion will be appropriate. If on the other hand the matter is pervasive to the financial statements and also material then an adverse audit opinion will be issued.

(b) (i) Impact on relying on work of G & S Consultants on the audit by Victor & Associates:

Victor & Associates do not have the skills and competences to determine the inventory and valuation in the agricultural industry. In the case at hand, the auditors relied on the valuation made by G & S Consultants who are management experts. The firm should have considered the objectivity and possession of relevant skills and competences before placing reliance on the valuation carried out by G & S Consultants. Victor & Associates could have engaged an auditor expert to perform the valuation and not rely on the work of G & S Consultants.

It should be noted that Victor & Associates are responsible for obtaining sufficient appropriate audit evidence in the conduct of the audit. They cannot blame a third party whose work they may have relied upon. Victor & Associates takes full responsibility for the audit the fact that G & S Consultants may have been negligent in the performance of their duties does not relieve the firm of its responsibility to obtain sufficient appropriate audit evidence.

(ii) Exposure of Victor & Associates to litigation:

1. The institutional investor who invested money in Limpopo Ltd for the purchase of acquiring a milling plant hoping to take over the company may take legal action against Victor & Associates for the loss suffered. The investor will claim reliance on the audited financial statements of Limpopo Ltd.
   Generally, the courts have held that the auditors do not owe a duty of care to third parties who rely on audited financial statements to make investment decisions. (Caparo v Dickman.)

   To succeed in suing Victor & Associates, the institutional investor will have to prove that:

   - Victor & Associates owe the institutional investor a duty of care.
   - The institutional investor should prove that there was a breach of duty of care by Victor & Associates and
   - It suffered loss as a result of the breach of duty by Victor & Associates.

2. Limpopo Ltd may take legal action against Victor & Associates because the contract is between Victor & Associates and the company.
   The position is as follows:

   - It is assumed by the court that auditors owe a duty of care to the company and there is no need to prove this to a court.
   - The company will require to prove that there was a breach of the duty of care by Victor & Associates and that Limpopo Ltd suffered loss as a result of the breach of the duty of care.

SOLUTION FIVE

(a) (i) Meaning of due diligence assignment:
Due diligence is a kind of a review engagement and can be considered as a fact finding mission.

This is usually required in the following circumstances:
- When a company intends to buy another company.
- When a company is being sold.

The assignment may be required by the buyer or seller of the company. The objective is to ensure the party requesting the due diligence assignment has all the necessary facts to enable them make an informed decision in the transaction.

In this case, due diligence may be required by Luangwa Communications Inc. on account of wanting to acquire Desai Ltd. The main objective of the required due diligence is to confirm that Desai Ltd is indeed what it is claiming to be.

Desai Ltd could also seek a due diligence to protect itself of a raw deal in the negotiations.

(ii) Matters that should be considered in a due diligence assignment:

1. The true ownership of Desai Ltd to safeguard Luangwa Communications Inc. from dealing with criminals.
2. Confirmation that Desai Ltd truly has a market share of 30% and that there are prospects for growth.
3. The stage of the negotiations by Desai Ltd with the two mining houses and the prospects of the deal succeeding.
4. To confirm the human resources of Desai Ltd and that it has highly skilled manpower. It is likely to be cheaper for Luangwa Communications Inc. to use local labor if it acquired Desai Ltd.

(b) (i) Change in terms of the engagement with Chipangali Ltd:
The following matters regarding Chipangali Ltd necessitate changes in the term of the engagement with the auditors.

1. There is a change in the ownership of the company with the former owners retaining only 5% of the shares.
2. There has been a change in the management of Chipangali Ltd and there is likely to be misunderstandings between the auditors and the new management unless the terms of the engagement are agreed.
3. Change in the scope of work that will be required of the auditors to include valuation services.
4. The company has undergone a complete restructuring and there could be changes in the way the company is organized and run.

How new terms of engagement will be addressed:
There will be need to issue a new engagement letter to replace the one that was issued more than five years ago with the old management. The new terms will be contained in the new engagement letter that will be agreed and discussed with the new management of Chipangali Ltd.

(ii) Matters of concern and how to resolve:
The audit team for the audit of the financial statements of Chipangali Ltd experienced number of issued that require attention.

These matters and how they will be addressed are explained below:

	Matter	How resolved
1	Failure to obtain evidence – this makes the work of the audit team difficult and could lead to delays in completing the audit. Furthermore, the audit team may not obtain the sufficient appropriate evidence it need to form an opinion.	This matter should be brought to the attention of management of Chipangali Ltd and the senior members of the firm so that interventions can be put in place.
2	Unable to obtain explanations when required – the explanations needed are part of evidence required by the auditors. If inadequate explanations	The auditors should report this to the audit committee if one exists and should also be brought to the attention of senior people in the firm including

	are obtained this will impact on the audit.	the Audit Manager and the Engagement Partner. The integrity of management should be re-evaluated especially that written representations from management acknowledging its responsibilities would have been received.
3	Evaluations of internal controls – The internal controls were assessed as effective ta the planning stage of the audit. Evidence now suggests that the internal controls are not effective.	The audit team should adopt a substantive audit approach and not rely on the internal controls. Increased testing of transactions and balances will be necessary.
4	Limitation of scope – It is likely that the audit team will not receive the audit evidence that they require to form an opinion. This may be the case given high incidence of lack of evidence and missing documents. Furthermore, the team is unable to get satisfactory explanations on matters of concern.	The audit team may need to consider issuing a disclaimer of opinion considering failure to obtain evidence.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA 3.4: ADVANCED TAXATION

THURSDAY 12 DECEMBER 2024

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

INSTRUCTIONS TO CANDIDATES

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

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

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

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

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

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

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

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

8. Present legible and tidy work.

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

10. A Taxation table is provided from page 2 to page 6 of the question paper.

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

TAXATION TABLE
Income Tax

Standard personal income tax rates		
Income band	**Taxable amount**	**Rate**
K0.01 to 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		
K0.01 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		10%
On income from mineral processing		30%
On income from mining operations		30%
On income of Banks and other Financial Institutions		30%

Mineral Royalty

Mineral Royalty on Copper

Norm price range per tonne	Incremental value	Mineral Royalty rate
Less than US$4,000	First $3,999	4.0% of norm value
From US$4,000 but less than US$5,000	Next $1,000	6.5% of norm value
From US$5,000 but less than US$7,000	Next $2,000	8.5% of norm value
US$7,000 and above	Over $7,000	10% of norm value

Mineral Royalty on other minerals

Type of mineral	Mineral Royalty Rate
Cobalt and Vanadium	8% of norm value
Base Metals (Other than Copper, Cobalt and Vanadium)	5% of norm value
Energy and Industrial Minerals	5% of gross value
Gemstones	6% of gross value
Precious Metals	6% of norm value

Capital Allowances

Implements, plant and machinery and commercial vehicles:

Wear and Tear Allowance –	Standard wear and tear allowance	25%
	Used in manufacturing and leasing	50%
	Used in farming and agro-processing	100%
	Used in mining operations	20%

Non- commercial vehicles

Wear and Tear Allowance	20%

Industrial Buildings:

Wear and Tear Allowance	5%
Initial Allowance	10%
Investment Allowance	10%

Low-Cost Housing **(Cost up to K100,000)**

Wear and Tear Allowance	10%
Initial Allowance	10%

Commercial Buildings

Wear and Tear Allowance	2%

Farming Allowances

Development Allowance	10%
Farm Works Allowance	100%
Farm Improvement Allowance	100%

Presumptive Taxes

Turnover Tax

Annual Turnover	
K0.01 to K12,000	0%
K12,001 to K800,000	4%

Rental income Tax

Rental income band	Taxable amount	
K0.01 to K12,000	First K12,000	0%
K12,001 to K800,000	Next K788,000	4%
On income above K800,000		12.5%

Presumptive tax for transporters

Seating capacity	Tax per annum	Tax per quarter
	K	K
Less than 12 passengers and taxis	1,080	270
From 12 to 17 passengers	2,160	540
From 18 to 21 passengers	4,320	1,080
From 22 to 35 passengers	6,480	1,620
From 36 to 49 passengers	8,640	2,160
From 50 to 63 passengers	10,800	2,700
From 64 passengers and over	12,960	3,240

Property transfer tax

Rate of tax on realised value of land (including buildings, structures or improvements thereon)	5%
Rate on realised value of intellectual property	5%
Rate on realised value of mining right for an exploration licence	5%
Rate of tax on realised value of a mining right for a mining licence	10%
Rate of tax on realised value on a mineral processing licence	10%

Value Added Tax

Registration threshold	K800,000
Standard Value Added Tax Rate (on VAT exclusive turnover)	16%

Customs and Excise duties on used motor vehicles

	Aged 2 to 5 years		Aged above 5 years	
Motor vehicles for the transport of ten or more persons, including the driver	**Customs duty K**	**Excise duty K**	**Customs duty K**	**Excise duty K**
Sitting capacity of 10 but not exceeding 14 persons including the driver	17,778	22,223	8,889	11,112
Sitting capacity exceeding 14 but not exceeding 32 persons	38,924	0	13,840	0
Sitting capacity of 33 but not exceeding 44 persons	86,497	0	19,462	0
Sitting capacity exceeding 44 persons	108,121	0	43,248	0

	Aged 2 to 5 years		Aged above 5 years	
Motor cars and other motor vehicles principally designed for the transport of persons including station wagons and racing cars	**Customs duty K**	**Excise duty K**	**Customs duty K**	**Excise duty K**
Sedans				
cylinder capacity not exceeding 1000 cc	12,490	10,824	7,136	6,185
Cylinder capacity exceeding 1000 cc but not exceeding 1500 cc	16,058	13,917	8,564	7,422
Cylinder capacity exceeding 1500 cc but not exceeding 2500 cc	16,545	21,508	8,423	10,950
Cylinder capacity exceeding 2500 cc but not exceeding 3000 cc	18,049	23,463	10,528	13,687
Cylinder capacity exceeding 3000 cc	22,561	29,329	12,032	15,642
Hatchbacks				
cylinder capacity not exceeding 1000 cc	10,705	9,278	7,136	6,185
Cylinder capacity exceeding 1000 cc but not exceeding 1500 cc	14,274	12,371	8,564	7,422
Cylinder capacity exceeding 1500 cc but not exceeding 2500 cc	15,041	19,553	8,423	10,950
Cylinder capacity exceeding 2500 cc but not exceeding 3000 cc	16,545	21,508	10,523	13,687
Cylinder capacity exceeding 3000 cc	19,553	25,419	12,032	15,642
Station wagons				
cylinder capacity not exceeding 2500 cc	16,545	21,508	9,024	11,731

Cylinder capacity exceeding 2500 cc but not exceeding 3000 cc	18,049	23,463	13,357	17,598
Cylinder capacity exceeding 3000 cc	22,561	29,329	18,049	23,463
SUVs				
Cylinder capacity not exceeding 2500 cc	21,057	27,374	9,024	11,732
Cylinder capacity exceeding 2500 cc but not exceeding 3000 cc	24,065	31,284	13,357	17,598
Cylinder capacity exceeding 3000 cc	28,577	37,150	18,049	23,463

	Aged 2 to 5 years		**Aged above 5 years**	
Motor vehicles for the transport of goods - with compression-ignition internal combustion piston engine (diesel or semi-diesel):	**Customs duty**	**Excise duty**	**Customs duty**	**Excise duty**
	K	**K**	**K**	**K**
Single cab				
GVW exceeding 1.0 tonne but not exceeding 1.5 tonnes	21,926	9,501	8,770	3,801
GVW exceeding 1.5 tonnes but not exceeding 3.0 tonnes	26,311	11,402	15,348	6,651
GVW exceeding 3.0 tonnes but not exceeding 5.0 tonnes	30,697	13,302	17,541	7,601
Double cabs				
GVW exceeding 3 tonnes but not exceeding 5 tonnes	30,697	13,302	24,119	10,452
Double cabs GVW exceeding 3.0 tonnes but not exceeding 5.0 tonnes, **with spark ignition internal combustion piston engine**	33,766	14,632	26,531	11,497
Panel Vans				
GVW not exceeding 1.0 tonne	13,353	5,786	7,630	3,061
GVW exceeding 1.0 tonne but not exceeding 1.5 tonnes	15,348	6,651	8,770	3,801
GVW exceeding 1.5 tonnes but not exceeding 3.0 tonnes	17,541	7,601	15,348	6,651
GVW exceeding 3.0 tonnes but not exceeding 5.0 tonnes	21,926	9,501	17,541	7,601
Trucks				
GVW up to 2 tonnes	13,907	10,662	6,413	4,916
GVW exceeding 2.0 tonnes but not exceeding 5.0 tonnes	15,453	11,847	7,726	5,923
GVW exceeding 5.0 tonnes but not exceeding 10.0 tonnes	24,724	18,955	9,272	7,108
GVW exceeding 10.0 tonnes but not exceeding 20.0 tonnes	30,905	23,694	11,744	9,004
GVW exceeding 20 tonnes	51,898	0	19,462	0
GVW exceeding 20 tonnes, **with spark ignition internal combustion piston engine**	37,086	28,432	13,907	10,662

Surtax

On all motor vehicles aged more than five (5) years from year of manufacture	K2,000

Customs and Excise on New Motor vehicles

Duty rates on:

1. Motor cars and other motor vehicles (including station wagons) principally designed for the transport of less than ten persons, including the driver:

Customs Duty:	
Percentage of Value for Duty Purposes	30%
Minimum Specific Customs Duty	K6,000
Excise Duty:	
Percentage of Value for Duty Purposes for Excise Duty Purposes	
Cylinder capacity of 1500 cc and less	20%
Cylinder Capacity of more than 1500 cc	30%

2. Pick-ups and trucks/lorries with gross weight not exceeding 20 tones:

Customs Duty	
Percentage of Value for Duty Purposes	15%
Minimum specific Customs Duty	K6,000
Excise Duty:	
Percentage of Value for Duty Purposes for Excise Duty Purposes	10%

3. Buses/coaches for the transport of more than ten persons

Customs Duty:	
Percentage of Value for Duty Purposes	15%
Minimum Specific Customs Duty	K6,000
Excise Duty:	
Percentage of Value for Duty Purposes for Excise Duty Purposes	
Seating Capacity of 16 persons and less	25%
Seating Capacity of 16 persons and more	0%

4. **Trucks/lorries with gross weight exceeding 20 tonnes**

Customs Duty:	
Percentage of Value for Duty Purposes	15%
Excise Duty:	
Percentage of Value for Duty Purposes for Excise Duty Purposes	0%

SECTION A

This question is compulsory and must be attempted

QUESTION ONE – (COMPULSORY)

You are employed in a firm of Chartered Accountants and you are dealing with the tax affairs of PharmLife Ltd, a VAT registered Zambian resident company engaged in manufacturing. The company manufactures medical drugs and imports all its raw materials from a country known as the Republic of Rinothia. On 22 December 2023, PharmLife acquired 70% of the issued share capital of PharmRaw, a company resident in a country known as the Republic of Rinothia and a manufacturer of raw materials used in the manufacture of medical drugs. The currency of the Republic of Rinothia is the Rinothian Dollar (RN$).

Managing Director of PharmLife Limited

The Managing Director of PharmLife is Blessings Abdu who also holds 6% of the issued share capital of PharmRaw. She is paid an all-inclusive salary amounting to K1,800,000 per annum. Income tax deducted under the pay as you earn system amounted to K506,410 during the year ended 31 December 2024.

On 31 December 2024, she received her share of dividends from PharmRaw amounting to K110,880 net of withholding tax deducted in Rinothia. Dividends in Rinothia are subjected to a final withholding tax at a rate of 34%.

On 31 December 2024, she additionally, received dividends from Zambian companies which are listed on the Lusaka Securities Exchange amounting to K23,800 (net) and interest on GRZ Bonds amounting to K37,400 (net).

Financial Results of PharmLife Limited

PharmLife's statement of profit or loss for the year ended 31 December 2024 showed the following results:

	K
Revenue	182,307,000
Cost of sales	(95,600,700)
Gross profit	86,706,300
Operating expenses	(33,500,200
Profit before interest & tax	53,206,100
Finance (interest) costs	(28,200,600)
Profit before tax	25,005,500

The following additional information is available:

(1) Cost of sales included depreciation of property, plant and equipment amounting to K3,880,400 and amortization of intangible assets amounting to K1,060,000. The balance of the cost of sales is made up of allowable expenses for taxation purposes.

(2) All operating expenses are revenue allowable expenses for taxation purposes.

(3) The finance costs are made up of interest paid on loans and lease obligations from financial institutions that are not related to PharmLife.

(4) Provisional income tax paid during the year ended 31 December 2024 amounted to K7,101,200.

(5) PharmLife bought raw materials from PharmRaw for RN$5,802,000 during the year ended 31 December 2024. These materials have been included at this amount within cost of sales in the statement of profit or loss shown above. The fair market price of the raw materials if bought from an unrelated company in Rinothia is RN$5,731,100.

(6) On 1 April 2024, PharmLife acquired 14% loan notes of its subsidiary, PharmRaw, for K41,010,000. The loan notes carry an effective interest rate of 14% which is an open market interest rate for this type of debt instrument. PharmLife received all the interest due from its subsidiary, on 31 December 2024, net of income tax paid in Rinothia. Loan interest is subjected to a final withholding tax in Rinothia at a rate of 25%. The interest income has not been included in the statement of profit or loss shown above.

(7) On 31 December 2024, PharmRaw paid dividends amounting to K1,848,000 net of withholding tax deducted in Rinothia. Dividends in Rinothia are subjected to a final withholding tax at a rate of 34%. PharmLife received its share of the dividends from PharmRaw on the same date. The dividends received have not been included in PharmLife's statement of profit or loss shown above.

(8) Capital allowances on assets qualifying for capital allowances held by the company during the year have been determined to be K2,248,000.

(9) The average Zambian Kwacha (ZMW) per Rinothian Dollar (RN$1) mid exchange rate prevailing during the year ended 31 December 2024 should be taken to be K24.80, where applicable.

(10) There is no double taxation convention between Zambia and the Republic of Rinothia. A Tax credit is available against any tax suffered on the foreign income.

Future plans

The company is planning to acquire the following assets in the near future:

(i) New manufacturing equipment at a total cost of K4,800,000 (VAT inclusive) from a Zambian resident supplier. The equipment will be acquired under a finance lease agreement under which PharmLife will be required to make annual lease payments of K1,400,000 payable in advance. The lease term is five (5) years at the end of which title to the equipment will be transferred to PharmLife. The company has established that the interest on the lease obligations will amount to K367,164 at the company's incremental rate of borrowing of 14% per annum.

(ii) A second-hand building from a non-VAT registered vendor at a cost of K4,756,000. The total cost will comprise land with a cost of K376,000, a factory with a cost of K3,200,000, a staff canteen with a cost of K480,000, a wholesale shop with a cost of K210,000 and general offices with a cost of K490,000. The purchase of the building will be financed by a bank loan of K5,000,000 carrying an interest rate of 24.26% per annum. Loan processing fees of K244,000 will be charged by the bank. In addition to the loan processing fees, interest on the bank loan will amount to K606,500.

The directors of Pharmlife are interested in knowing what the taxation implications of acquiring the above assets will be.

Required:

(a) Calculate the amount of income tax payable by Blessings Abdu for the tax year 2024. (7 marks)

(b) Advise the Directors of PharmLife of the income tax implications arising from:

(i) Purchase of raw materials from its subsidiary, PharmRaw. (3 marks)

(ii) The loan advanced to its subsidiary, PharmRaw. (2 marks)

Your answer should be supported by relevant calculations where applicable.

(c) Calculate the amount of taxable business profit and income tax payable by PharmLife for the tax year 2024. (15 marks)

(d) In relation to the company's future plans, advise the directors of PharmLife using appropriate supporting computations of the VAT and income tax implications that will arise from:

(i) The purchase of manufacturing equipment under a finance lease. (4 marks)

(ii) The purchase of the building using a bank loan. (9 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt any three (3) questions.

<u>QUESTION TWO</u>

Elijah has been running a manufacturing business as a sole trader for many years. A major proportion of his total sales are on credit. At the start of the tax year 2023, he estimated his taxable profits to be K1,260,000. He calculated and paid the provisional income tax correctly on the due dates and he also submitted the return of provisional income for the tax year 2023 correctly. At the end of the tax year 2023, Elijah's actual final taxable profit was K1,265,000. Elijah has told you that due to the liquidity problems his business is facing, he will only be able to pay the balance of tax payable relating to the tax year 2023 on 25 August 2024, when he expects one of his major customers to pay him amounts he owes. He also plans to submit the self-assessment income tax return on this date.

In January 2024, he estimated the taxable profit for the tax year 2024 to be K1,420,000. However, due to poor sales he recorded in the first two months of the year, in March 2024, he decided to revise the estimated taxable business profit for the tax year 2024 from the original estimate of K1,420,000 to only K1,300,000. He paid the provisional income tax for the quarter ended 31 March 2024 and also submitted the return of provisional income for the tax year 2024 on 31 July 2024. All the remaining instalments of provisional income tax relating to the tax year 2024 were paid on the relevant due dates. The balance of any income tax payable at the end of the tax year 2024, together with the related self-assessment income tax return for the tax year 2024, were both paid and submitted on the relevant due dates.

Due to the liquidity problems the business has been facing, Elijah's plans for next year include finding strategies of reducing taxable profits in order to reduce his tax liabilities to levels he can easily manage to pay. He does not know the difference between tax planning and tax evasion and needs some clarification to enable him establish strategies to assist with reducing potential tax liabilities. To reduce taxable profits next year Elijah has proposed the following strategies:

(1) To treat his annual gross salary which he draws from the business as an allowable expense since he works full time in the business.

(2) To include credit sales within revenue in the statement of profit or loss only when he receives cash payments from his clients. Therefore, only sales for which he has actually received cash will be included in computation of taxable profit, whilst any credit sales made during the period for which payment has not been received will be excluded from revenue.

You should assume that the Bank of Zambia discount rate is 9.5% per annum, where applicable and that the tax rates for the tax year 2024 apply through out

Required:

(a) Discuss the differences between tax planning and tax evasion and advice Elijah whether his proposed strategies to reduce his tax liabilities will amount to tax planning which will be accepted by the ZRA. (8 marks)

(b) Advise Elijah of the amounts of penalties and interest on overdue taxes and tax returns charged on all payments and tax return submissions made up to and including 25 August 2024. (12 marks)

[Total: 20 Marks]

QUESTION THREE

MPK Mining Corporation is a Zambian resident subsidiary of a foreign based mining company. The company is engaged in mining operations of copper and other minerals in Zambia. The group financial statements are prepared in United States dollars. The company's statement of profit or loss for the year ended 31 December, 2024 is provided below:

MPK Mining Corporation
STATEMENT OF PROFIT OR LOSS FOR THE YEAR ENDED 31 DECEMBER 2024

	Note	K'000
Gross profit		289,877
Operating expenses	(1)	(95,000)
Finance costs		(30,000)
Other income	(2)	648
Profit before income tax		165,525
Income tax expense	(3)	(5,200)
Profit for the year		160,325

The following additional information is relevant:

Note 1: Operating expenses

Included within operating expenses are depreciation charges of K17,500,000, mine excavation expenses of K11,265,000, mineral exploration expenses of K11,230,000, fines for discharging poisonous mineral wastes in a local river of K550,000, expenditure of K16,850,000 incurred on upgrading a local clinic in the mining township into a level one hospital, donations of food and clothing to the poor in the local mining township amounting to K950,440. The remaining balance is made up of revenue operating expenses which are allowable for tax purposes.

Note 2: Other income

This includes dividends from Zambian companies K120,000 (net), a foreign exchange gain of K285,000 on translation of the fair value of investment property held in a foreign country at the year end, a foreign exchange loss of K115,000 arising on the translation of an amount owed to foreign suppliers at the end of the year and a foreign exchange gain of K29,920,000 on translating unsettled foreign receivables at the year end.

Note 3: Income tax

This represents the amount of provisional income tax paid during the year ended 31 December 2024.

Note 4: Mineral Royalty Tax

The Mineral royalty tax paid by the company has not been accounted for in the statement of profit or loss shown above.

(1) For the year ended 31 December 2024, the company extracted and sold 18,000 tonnes of copper. The norm price of copper at the London Metal Exchange (LME) averaged US$6,000 per tonne throughout the year. The relevant average Zambian kwacha per US dollar rate approved by the Commissioner General was K24.00/US$1 for the year 2024.

(2) MPK Mining Plc additionally extracted the following base and precious minerals during the tax year 2024:

Mineral	Category	Value
Emeralds	Gemstones	K45,100,000
Manganese	Base metal	K19,000,000

The above values for Emeralds and Manganese represent the gross value and norm value of the minerals sold in each case respectively.

Note 5: Implements, plant and Machinery.

The only implements plant and equipment held by the company on 1 January 2024, qualifying for capital allowances was mining equipment, which was bought at a cost of K30,100,000 two years ago. During the year ended 31 December 2024, the company installed a new conveyor belt at one of its mines at a cost of K18,400,000. The expenditure on these assets was incurred in Zambia and paid for in Zambian Kwacha.

Note 8: Mining loss brought forward

On 1 January 2024, the company had unrelieved mining loss brought forward amounting to K8,500,000. This loss is a balance of the loss made during the year ended 31 December 2021.

Note 9: Indexation Formula

The indexation formula for capital allowances and mining losses, where applicable, is given below:

$$1+\frac{(R_2-R_1)}{R_1}$$

The following Zambian Kwacha per US Dollar (ZMW/US$) average BOZ mid-exchange rates should be used where applicable:

Accounting Period	*Average BOZ Mid-Exchange rate*
	ZMW/ US$
Y/e 31 December 2023	K20.00
Y/e 31 December 2024	K24.00

Required:

(a) Calculate the amount of mineral royalty tax paid during the year ended 31 December 2024. (4 marks)

(b) Calculate the amount of taxable mining profits and company income tax payable by for the tax year 2024. (16 marks)

[Total: 20 Marks]

QUESTION FOUR

Kamlanga Bank Plc is a Zambian resident company engaged in the provision of banking and other financial services. The company listed its shares on the Lusaka Securities Exchange in the year 2023 when 29% of its issued equity shares were taken up by indigenous Zambians.

The following is the Bank's statement of profit or loss for the year ended 31 December 2024:

	K'000
Interest Income (Note 1)	1,073,400
Interest expense (Note 2)	(22,000)
Net interest income	1,051,400
Provision for loan losses (Note 3)	(2,700)
Net interest income after provision for loan losses	1,048,700
Non-interest income (Note 4)	500
Net interest and other income	1,049,200
Non- interest expense (Note 5)	(46,300)
Income before taxes	1,002,900
Income tax expense (Note 6)	(3,210)
Loss after taxation	999,690

The following additional information is available:

(1) **Interest income**

This represents interest from loans and overdrafts of K712,658,000, interest received from other banks and financial institutions of K17,500,000 and the balance represents interest from various securities.

(2) **Interest Expenses:**

This included interest on subordinate debt of K4,600,000 and interest paid to clients on deposit accounts amounting to K17,400,000.

(3) **Provision for Loan Losses:**

These comprised the following:

	K
Loan Losses Written Off	1,800,000
Increase in General Provision for Loan Losses	2,300,000
Loan Losses Recovered	(1,400,000)
Total Provision for Loan Losses	2,700,000

(4) **Non – interest income**

These comprised dividends from shares of K70,000 (gross) and royalties of K430,000 (gross).

(5) **Non-Interest Expenses:**

These included the following items:

	K
Donations to political parties	848,000
Depreciation of non-current assets	500,000
Directors' emoluments	2,120,000
Unapproved share option scheme expenses	1,230,000
Defined benefit expenses:	
Current service costs	1,400,000
Past service costs	900,000
Net interest cost	700,000
Other employees' salaries and wages	33,000,000
Other business related revenue expenses	5,602,000
	46,300,000

The company paid pension benefits to retirees amounting to K2,000,000 during the year ended 31 December 2024

(6) **Provisional Income Tax**

This represents the amount of income tax expenses calculated in accordance with IAS 2 – Income taxes. Provisional income tax paid by the company during the year ended 31 December 2024, amounted to K1,279,200.

(7) **Capital allowances**

On 1 January 2024, all the assets had been written down to zero for capital allowances purposes. During the year ended 31 December 2024, the company acquired the following assets:

	K
Office equipment	400,000
Head office building (Land – K1,200,000)	11,200,000
Automated Teller Machines (ATMs)	1,120,000

(8) **Withholding tax**

Withholding tax paid on interest income amounted to K460,000 during the year ended 31 December 2024.

Other information

The company is currently running an unapproved employee share option scheme from which it incurred expenses amounting to K1,230,000 during the year ended 31 December 2024. They have heard that there are tax benefits for both the company and employees if a share option scheme ran by an employer is approved for tax purposes. The directors wish to know the conditions to be met for an employee share option scheme to be approved for taxation purposes.

Required:

(a) Calculate the amount of company income tax payable by Kamlanga Bank Plc for the tax year 2024**.** (14 marks)

(b) Explain the conditions to be met for a share option scheme to be approved for tax purposes. (6 marks)

[Total: 20 Marks]

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

For the purposes of this question, you should assume that today's date is 30 September 2024.

You are employed in a firm of Chartered Accountants and you have been assigned to deal with the tax affairs of Banana Limited, a Zambian resident company engaged in farming.

The directors of Banana have indicated to you that they received a notice from Zambia Revenue Authority (ZRA) for a tax audit to be conducted in respect of the tax year 2023. The tax audit will be conducted from Banana's premises starting on 7 October 2024 to 11 October 2024. The directors are not sure whether this constitutes a tax investigation. You have reviewed the Income Tax and Value Added Tax returns submitted for the tax year 2023 and discovered the following:

(1) The company had provided free residential accommodation in company owned houses, to the Managing Director and the Human Resources Director whose gross taxable emoluments were K1,300,000 and K1,104,000 respectively for the year ended 31 December 2023. No adjustment was made on the income tax return in respect of the free residential accommodation. The company further incurred maintenance expenses in respect of the two (2) houses provided to the directors amounting to K78,800 (VAT inclusive) for the year ended 31 December 2023. These expenses were correctly treated on the income tax return as allowable expenditure, but the VAT on the maintenance expenses was included as part of the recoverable input VAT on the VAT return.

(2) Expenditure incurred on staff refreshments amounting to K139,200 (VAT inclusive) was treated as allowable expenditure when computing the taxable business profit for the year ended 31 December 2023. Furthermore, the VAT on the staff refreshments was treated as recoverable input VAT on the relevant VAT return.

You have advised the directors to submit amended Income Tax and VAT returns reflecting the correct treatment of each of the above items. However, the directors have indicated that they cannot rectify the returns as they have already been submitted to ZRA.

Required:

(a) Explain the difference between tax audit and tax investigation. (3 marks)

(b) Explain the three (3) types of tax defaults that may be uncovered by the tax auditor during a tax audit, giving an example in each case. (6 marks)

(c) Advise the directors of Banana of the disclosure options that may be available to them to regularize errors made on tax returns. (4 marks)

(d) Assuming the tax rates for the tax year 2024 apply throughout, advise the Directors of Banana of the income tax and VAT implications of each of above errors made. Your answer should include a computation of the amount of tax underpaid.

(7 marks)

[Total: 20 Marks]

END OF PAPER

CA 3.4 – ADVANCED TAXATION SUGGESTED SOLUTIONS

SOLUTION ONE

(a) ABDU

PERSONAL INCOME TAX COMPUTATION FOR THE TAX YEAR 2024

	K
Salary	1,800,000
Foreign income	
Dividends (K110,880 x 100/66)	168,000
Taxable income	1,968,000
Income Tax	
First K110,400	12,360
Excess (K1,968,000 – K110,400) x 37%	687,312
	699,672
Less:	
Pay as you earn	(506,410)
Double taxation relief – Dividends	(57,120)
Income tax payable	136,142

Workings

Double taxation relief

This the lower of:

Foreign tax paid: K168,000 x 34% = K57,120; and

The Zambian tax attributable to the

Gross foreign income x Zambian tax charge

Total assessable income

K168,000 x K706,272 (W1)

K2,012,000

= K58,973 (W2)

The double taxation relief is K57,120 which is the lower amount.

(W1) Total assessable Income

	K
Total Income chargeable to normal Income tax	1,968,000
GRZ Bond interest (K374,000 x 100/85)	44,000
Total assessable Income	2,012,000

(W2) Zambian Tax Charge

	K
Income Tax liability on income assessable under normal Income tax	699,672
WHT on GRZ bond interest (K44,000 x15%)	6600
	706,272

(b) Income tax implications

(i) Purchase of raw materials from Pharma

Where a Zambian resident company acquires goods from a related company resident in a foreign country, the price charged for those goods should be at arm's length; meaning that the price should be an open market value.

Where the price paid for those goods is more than the open market value, then the difference between the open market value and the actual price paid for the goods should be added to the taxable business profits of the Zambian resident company.

Therefore, PharmLife will be disallowed the difference between RN$5,802,000 and RN$5,731,100 as transfer pricing adjustment when computing the taxable business profits. i.e.; (RN$5,802,000 – RN$5,731,100) x K24.80 = K1,758,320.

(ii) Loan advanced to PharmRaw

Where the Zambian resident company advance a loan to a related company resident in a foreign company, the interest charged should be the arm's length interest rate; i.e.; the open market interest rate.

Where the actual interest rate charged on the loan is lower than the open market rate, then the excess is added to the taxable income for the Zambian resident company as transfer pricing adjustment. Therefore, there will be no transfer pricing adjustment in respect of the loan advanced to PharmRaw because the actual interest rate charged is equal to the open market interest rate.

However, the whole interest received from PharmRaw will be subjected to Zambian income tax adjusted for any double taxation relief.

(c) Taxable business profits and income tax payable by PharmLife for the tax year 2024

	K	K
Profit before tax		25,005,500

Add:		
Depreciation	3,880,400	
Amortization	1,060,000	
Transfer pricing adjustments:		
Purchase of raw materials from PharmLife	1,758,320	
		6,698,720
		31,704,220
Less:		
Capital allowances		(2,248,000)
		29,456,220
Add income from foreign sources		
Loan interest received		
(K41,010,000 x 14% x 9/12)	4,306,050	
Dividends received		
(K1,848,000 x 100/66 x 70%)	1,960,000	
		6,266,050
Taxable income before interest adjustment		35,722,270
Disallowed interest		7,541,619
Total taxable income		43,263,889
Company income tax: K 43,263,889 x 30%		12,979,167
Less:		
Provisional income tax paid		(7,101,200)
Double taxation relief:		
Loan interest		(1,076,513)
Dividends		(588,000)
Income tax payable		4,213,454

Workings

(1) Tax EBITDA and disallowed interest

	K
Tax adjusted business profits	35,722,270
Interest expense	28,200,600
Depreciation	3,880,400
Amortization	1,060,000
Tax EBITDA	68,863,270
Interest expenses	28,200,600
Allowable interest expense (K68,863,270 x 30%)	(20,658,981)
Disallowed interest	7,541,619

(2) Double taxation relief on loan interest

Foreign tax paid = K4,306,050 x 25% = K1,076,513

Equivalent Zambian = K4,306,050 x 30% = K1,291,815

The double taxation relief is K1,076,513 which is the lower amount.

(3) Double taxation relief on Dividends

Foreign tax paid: K1,960,000 x 34% = K666,400

Equivalent Zambian tax: K1,960,000 x 30% = K588,000

The double taxation relief is K588,000 which is the lower amount.

(d) Income tax and VAT implications arising from the purchase of non-current assets are as follows:

(i) 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: K4,800,000 x 4/29 = K662,069.

(2) The interest component of the lease obligation amounting to K367,164 is an allowable deduction when computing the taxable business profit provided it does not exceed 30% of the tax earnings before interest, tax, depreciation and amortization (EBITDA).

(3) The capital repayment component of the lease rental (K1,200,000 – K367,164 = K832,836) 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: K4,800,000 x 25/29 x 50% = K2,068,966.

(ii) Purchase of second – hand building

The following will be the taxation implications arising from the purchase of the building using a bank loan:

(1) There are no value added tax implications on PharmLife since the building was acquired from a non-VAT registered vendor.

(2) The loan processing fees of K244,000 will be allowable in computing taxable business profits for as long as it does not exceed 30% of the tax earnings before interest, tax, depreciation and amortization (EBITDA).

(3) The loan interest incurred amounting to K606,500 will be an allowable expense provided it does not exceed 30% of the tax earnings before interest, tax, depreciation and amortization (EBITDA).

(4) Capital allowances on the building are claimable at the appropriate rate of wear and tear. Initial and investment allowances will not be available because PharmLife is not the first user of the building.

The amount of capital allowances claimable on the building for the tax year 2024 will be:

	K
Factory	
Wear & tear: K3,200,000 x 5%	160,000
Staff canteen	
Wear & tear: K480,000 x 5%	24,000
Wholesale shop	
Wear & tear: K210,000 x 2%	4,200
General offices	
Wear & tear: K490,000 x 2%	9,800
Total capital allowances	198,000

Workings

	K
Cost	4,756,000
Less cost of land	(376,000)
Qualifying expenditure	4,380,000

K4,380,000 x 10% = K438,000.

The total cost of non – industrial building is more than 10% of the qualifying expenditure; i.e.; K210,000 + K490,000 = K700,000. Therefore, the non – industrial building should be classified as commercial building.

SOLUTION TWO

(a) Tax planning involves using the various provisions available under tax law to minimise or defer tax liabilities lawfully within the confines of tax law applying tax regulations in the manner it was intended. Tax planning is therefore legal.
Tax evasion refers to the use of illegal means to avoid tax. Such means include failing to disclose the relevant amounts of income and other forms of fraud which the taxpayers may engage in. The aim of the taxpayer practicing tax evasion is to defraud the government of the revenue.

Tax evasion is an offence and may be punishable by fines and/or imprisonment. On the other hand, tax avoidance is concerned with identifying any loopholes in the taxes legislation and using them to minimize or defer tax liabilities. Tax avoidance is, however, difficult to define more thoroughly.

Elijah wishes to treat his annual gross salary which he draws from the business as an allowable expense since he works full time in the business. This will have the effect of reducing his taxable profit and hence his tax liability. Appropriations of profits such as wages and salaries of owners of a trade, profession or vocation are not allowed as expenses for tax purposes. Therefore, this does not amount to tax planning. Therefore, this will amount to tax evasion.
Similarly, recognising revenue only when cash is received amounts to tax evasion as revenue is normally recognised when it is earned. This will have the potential of reducing his revenue and hence his taxable income and tax liability. The accruals principle of accounting requires that revenues and expenses should be recognised when earned, regardless of whether the money has been received /paid or not.

The ZRA will therefore not accept his treatment of his salary as an allowable expense and recognition of revenue on cash basis only as this is inconsistent with accounting principles.

(b) PENALTIES AND INTEREST ON OVERDUE TAXES

(1) Balance of income tax for the tax year 2022
The balance of income tax for the tax year 2023 of K1,850 (W) was paid on 25th August 2024 and was delayed by 2 months and 4 days (i.e.,65 days) from its due date of 21 June 2023.

The penalty for late payment of tax is: 5% x K1850 (W1) X 3 = <u>K 277.5</u>

The interest on the overdue tax will be: (9.5%+2%) =11.50% x K1,850 X 65/365 =K38

(W1) COMPUTATION OF THE BALANCE OF INCOME TAX FOR THE TAX YEAR 2023

	K
Taxable income for the tax year 2023	1,265,000
Less provisional taxable income for the tax year 2023	(1,260,000)
Additional taxable income	5,000
Balance of income tax payable (K5,000 x 37%)	1,850

(2) Provisional Income tax for the quarter ended 31 March 2024
The amount of K113,128 (W2) was delayed by 3 months and 20 days (or 112 days) from 10 April 2024 to 31 July 2024, when it was paid.

Penalty for late payment of tax is: 5% x K113,128 x 4 = K22,625.6

Interest on overdue income tax is: 11.50% x K113,128 x 112/365 = K3,992

(W2) COMPUTATION OF PROVISIONAL INCOMETAX PAYABLE FOR THE TAX YEAR 2023

	K
Provisional income	1,300,000
Income Tax	
On first K110,400	12,360
On excess (K1,300,000 - K110,400) x 37%	440,152
Provisional income tax paid	452,512
Provisional income tax per quarter	
K452,512/4	113,128

PENALTIES FOR LATE SUBMISSION OF RETURNS

(1) The self-assessment income tax return for the tax year 2024
This return should have been filed by 21 June 2024 but instead it was actually filed on 25th August 2024, it was delayed by 2 months and 4 days.

The penalty is chargeable for individuals at the rate of K300 (1,000 penalty units) per month or part thereof and will amount to: K300 x 3 = K900 (or 1,000 penalty units x 3= 3,000 penalty units)

(2) The return of provisional income for the tax year 2024
This return should have been filed by 31 March 2024 but instead it was filed on 31st July 2024, it was delayed by 4 months 122 days.

The penalty chargeable for individuals is 1,000 penalty units (K300) per month or part thereof. Penalty chargeable is therefore: K300 x 4= K1,200 (or 1,000 penalty units x 4 = 4,000 penalty units).

SOLUTION THREE

(a) COMPUTATION OF MINERAL ROYALTY

	K'000
First ($3,999 x 18,000 tonnes x K24) x 4%	69,102.72
Next ($1,000 x 18,000 tonnes x K24) x 6.5%	28,080.00
Balance ($1,001 x 18,000 tonnes x K24) x 8.5%	36,756.72
	133,939.44
Emeralds (K45,100,000 x 6%)	2,706
Manganese (K19,000,000 x 5%)	950
	137,595.44

(b) COMPUTATION OF TAXABLE MINING PROFITS AND COMPANY INCOME TAX PAYABLE

	K'000	K'000
Profit for the year		165,525
Add		
Depreciation	17,500	
Fines	550	
Hospital	16,850	
Donations	950.44	
Forex loss on receivable	115	
		35,965.44
		201,490.44
Less		
Dividends	120	

Forex gain investment property	285	
Forex gain on receivables	29,920	
Mineral royalty	137,595.44	
Capital allowances (W1)	13,070	
		(180,990.44)
Taxable profit before interest adjustment		20,500
Disallowed interest (W2)		9,600
Taxable mining profit before loss relief		30,100
Loss relief (W3)		(10,200)
Final taxable mining profits		19,900
Company income tax (K19,900,000 x 30%)		5,970
Less provisional income tax		(5,200)
Final company income tax payable		770

WORKINGS

(1) CAPITAL ALLOWANCES

	K'000
Mining equipment	
(K30.1 m x 20%)	6,020
Conveyor belt	
Wear & tear allowance	
(K18.4 m x 20%)	3,680
Hospital	
Wear & tear allowance	
(K16.85m x 20%)	3,370
	13,070

(2) COMPUTATION OF TAX EBITDA AND DISALLOWED INTEREST

	K'000
Taxable profit	20,500

Finance cost	30,000
Depreciation	17,500
Tax EBITDA	68,000

Finance cost	30,000
Less allowable interest	
(30% x K68,000)	(20,400)
Disallowed interest	9,600

(3) Loss relief

	K'000
Loss Relief for 2024	
[(1+(24 – 20)/20 x K8,500,000]	10,200
Loss Relief for 2024	10,200
Unrelieved loss c/f	0
Profit available for loss relief	
(50% x K30,100)	15,050

The whole loss will be relieved because it is less than 50% of the taxable mining profit for the year ended 31 December 2024.

SOLUTION FOUR

(a) **KAMLANGA BANK PLC**
COMPUTATION OF TAXABLE INCOME AND COMPANY INCOME TAX PAYABLE FOR THE TAX YEAR 2023

	K	K
Profit before tax		1,002,900
Add:		
Increase in general allowance	2,300,000	
Share option expenses	1,230,000	
Current service costs:	1400,000	
Past service costs:	900,000	
Net Interest costs	700,000	
Depreciation	500,000	
Donation to political parties	848,000	

		7,878,000
		8,880,900
Less:		
Dividends income	70,000	
Royalties	430,000	
Pension paid to retirees	2,000,000	
Capital allowances	580,000	
		(3,080,000)
Taxable profit		5,800,900
Add:		
Royalties		430,000
Taxable income		6,230,900
Company Income tax (K6,230,900 x 30%)		1,869,270
Less:		
Withholding tax on interest income		(460,000)
WHT- Royalties (K430,000 x 15%)		(64,500)
Provisional income tax		(1,279,200)
Income tax payable		65,570

Workings

	K
Office equipment (K400,000 x 25%)	100,000
Head office building (K11,200,000 – K1,200,000) x 2%	200,000
Automated Teller Machines (K1,120,000 x 25%)	280,000
Total capital allowances	580,000

(b) For the commissioner General to approve a share option scheme the following conditions must be met:

(1) The scheme must be established in Zambia and the employer must be carrying on business wholly or partly in Zambia.
(2) The scheme should provide for the participation of eligible employees including directors.
(3) An employee participating in the scheme not acquire more than one fifth (20%) of the shares to be issued under the scheme.
(4) Only ordinary shares of the company may participate in the scheme.
(5) The scheme entitles an employee to acquire a set number of shares at a fixed price.
(6) The employee must be restricted to a set period of time to use an option to buy shares.
(7) The employees must be citizens or permanent residents of Zambia regardless of where they perform their duties.

SOLUTION FIVE

(a) Tax audit is the examination of a tax return, declaration of liability or a repayment claim, statement or liability to stamp duty, or the compliance of the taxpayer with tax legislation. A taxpayer may be selected for a tax audit randomly and may be selected on a particular sector. A tax audit examines the books and records of the taxpayer to establish if there are any tax defaults, and to reach a settlement with the taxpayer to ensure future compliance with the tax law.

A tax audit is comprehensive and can examine compliance under a wide range of taxes which taxpayers are liable, although sometimes a tax audit can be restricted to examine compliance for a specific tax such as pay as you earn.

On the other hand, tax investigation is an investigation carried out due to some tax evasion or tax fraud that has been reported in connection with a taxpayer. A tax investigation can also be carried where a taxpayer consistently reports losses which may be taken as abuse of tax loss relief given to taxpayers or as a sign of tax evasion.

(b) The following are the tax defaults that may be uncovered during a tax audit:

(1) Deliberate behaviour
This is the breach of tax obligations where the taxpayer has intent to understate the amount of tax liability. This includes omission of certain transactions from the books and tax returns, providing false or misleading information and failure to maintain proper books of accounts.

(2) Careless behaviour with significant consequences
This is where the taxpayer breaches tax obligations as a result of failure to take reasonable care. Examples of actions that may give rise to careless behaviour with significant consequences include failure to categorise expenses into allowable and disallowable for tax purposes and failure to take advice.

(3) Careless behaviour without significant consequences
This is where the taxpayer breaches tax obligations that are minor and as a result the amount of tax underpaid is not significant compared to the correct amount of income tax payable. Examples of this type of default include computational errors, inadequate adjustments for personal expenditure.

(c) Where a taxpayer identifies some errors in the tax returns submitted to ZRA, disclosure options are available to regularize the errors. The directors of Banana, therefore, have the following disclosure options:

(1) Self-correction
Under this option, the directors can apply in writing to the Commissioner General setting out the adjustments to be made to the original tax return already submitted, attaching a corrected computation of the tax liability and enclosing payment of tax.
This option is not available where the taxpayer has been notified of the tax audit or tax investigation. In this case this option is not available to Banana since the company has already been notified of the tax audit.

(2) Declaration of an innocent error
Under this option, a taxpayer can declare an innocent error indicating that the amount of tax underpaid arose due to an innocent error made by the taxpayer. Where the tax auditor is satisfied that the underpayment of tax is due to the innocent error made by the taxpayer, no penalties will apply on the underpaid tax.

(d) The taxation implications arising from the errors made are as follows:
Income tax implications

(1) Provision of free accommodation to the directors

Where the company has provided free residential accommodation to an employee in a company owned house, the employer's taxable business profit is increased by 37.5% of the taxable emoluments payable to that employee.

In this case, Banana should have added to the taxable business profits 37.5% of the Managing Director's salary and the Human Resources Director's salary. This means that the company income tax for the tax year 2023 was underpaid.

The following is the amount of income tax underpaid:

	K
Free accommodation benefit:	
Managing Director (K1,300,000 x 37.5%)	487,500
Human Resources Director (K1,104,000 x 37.5%)	414,000
Total disallowable amount	901,500
Income tax underpaid @10%	90,150

(2) Expenditure incurred on staff refreshments

An expenditure incurred to provide refreshments to staff is not an allowable expense when computing the taxable business profit for the employer. This means that the directors of Banana understated the taxable income by treating the staff refreshments as an allowable expense.

The amount of income tax underpaid is therefore: K139,200 x 10% = K13,920.

Value Added Tax implications

(1) Free accommodation

According to the VAT Act, input VAT on expenses incurred by the employer for domestic accommodation of directors is irrecoverable when computing the VAT payable. This means that the directors of Banana shouldn't have included VAT on house maintenance as recoverable input VAT on the VAT return.

The amount of VAT underpaid is: K78,800 x 4/29 = K10,869

(2) Staff refreshments

Input VAT incurred on staff refreshments is also irrecoverable when computing the VAT payable. Including input VAT on staff refreshments as recoverable understates the amount of VAT to be paid. This means that VAT payable for the year 2023 was understated by; K139,200 x 4/29 = K19,200.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA3.5: ADVANCED MANAGEMENT ACCOUNTING

TUESDAY 10 DECEMBER 2024

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

INSTRUCTIONS TO CANDIDATES

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

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

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

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

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

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

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

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

8. Present legible and tidy work.

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

10. Present Value and Annuity Tables are attached at the end of the question paper.

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

SECTION A

This question is compulsory and MUST be attempted.

QUESTION ONE - COMPULSORY

Lushomo Associates (LA) an accounting firm which was established in 2010 and specialises in providing accounting and auditing services to various private and public clients. Its main objective is to maximise the returns of its partners by leading motivated employees. The firm enters service contracts with its clients based on the ethical codes of the accounting profession. In the contracts for private individuals, most of its clients are conservative, wealthy, self-employed and have an average age of 49.

Lushomo Associates was established by three partners in 2019. Currently, LA has a total of twenty-five (25) members of staff.

Faith Lushomo, the Managing Director, is contemplating introducing new services such as taxation and business consultancy. The introduction of these services will likely enhance the profitability of the firm, unlike the status of depending on the two services.

As a chartered accountant, you have been provided with financial information and non-financial information below which is based on the balanced scorecard format relating to the practice.

Financial information:

	Current year	**Previous year**
	K'000	K'000
Turnover	1,890	1,600
Net profit	384	360
Average cash balance	43.2	40
Average receivable days (Industry average 50 days)	36	44
Inflation rate (%)	14	11

Balanced scorecard (extract)

	Current year	**Previous year**
Internal Business Processes:		
Error rates in jobs done	8%	5%
Average job completion time	3.5 weeks	5 weeks
Customer:		
Number of customers	610	750
Average fee levels (K)	14,500	10,000
Market Share	15%	19%
Learning and Growth:		
Percentage of income from non-core work	2%	2.5%
Industry average of the proportion of income from non-core work in accounting practices	26%	20%
Employment retention rate	46%	56%

Notes

1. Error rates measure the number of jobs with mistakes made by staff as a proportion of the number of clients serviced.

2. Core work is defined as being accountancy and audit. Most of the non-core work is generally of high margins.

During the latest strategic management meeting in which all the three partners were present, it was unanimously agreed that the firm be split into three divisions (profit centres) namely, audit, business consultancy and taxation. The three divisions will be overseen by the partners with the help of managers. The managers have risen through the ranks in the firm and understand its operations very well. Lushomo Associates is concerned with the current staff retention rate despite a 17.86% improvement and has therefore asked you for advice on how this could be improved.

All the accounting jobs would be allocated to the business consultancy division. The key performance measurements will be return on investment (ROI) and residual income (RI). Management has proposed that its managers should be rewarded based on achieving the target ROI.

Management intends to change the current information systems into a more accessible and robust system at Lushomo Associates. The current system is based on different services being offered. However, the implementation of the proposed system will be based on an integrated single database. This will be enabled with a management information system and an executive information system.

The database will be accessible by staff in the two new locations, the firm intends to open. It is expected that the firm's computer network will be upgraded to allow real-time input and update of the database.

Required:

(a) Assess the financial performance of Lushomo Associates considering growth, profitability, liquidity and credit management. (4 marks)

(b) Evaluate the non-financial performance of Lushomo Associates and comment on the overall performance of the business. (12 marks)

(c) Discuss the advantages and disadvantages of the proposed performance measures (ROI and RI) for Lushomo Associates and explain why the ROI is preferred to the RI.

(14 marks)

(d) Evaluate the potential impact of the introduction of the new information systems at on performance management at Lushomo Associates.

(10 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt any THREE (3) questions in this section.

QUESTION TWO

Mabanda General Hospital (MGH), a level 1 hospital in Petauke, is worried about the amount of money being consumed by accident and emergency services. The management board of the hospital has suggested that steps be taken to reduce the number of accidents in the area and put a manager in charge of the scheme. The manager proposes three methods to deal with raising awareness of the problem of accidents:

- A special mobile unit to tour the area in Petauke and distribute leaflets and disseminate information to schools and other institutions as well as the general public.
- Leafleting the area with a specially prepared booklet.

- Radio and television broadcasts to the local community in Petauke.

Required:

(a) Discuss three (3) performance measures you would apply to the evaluation of the manager's schemes and how you would use those performance measures to judge the success of the scheme. (7 marks)

A new manager, Ms Barbra Kunda, has joined the hospital and has decided to improve the evaluation of management performance. To increase awareness of managerial performance measures, the new manager has asked you for a brief summary of all the strengths and weaknesses of the following types of performance measure:

- Quantitative measures
- Qualitative measures
- Budget and actual comparisons

Required:

(b) Evaluate the strengths and weaknesses of the performance measures. For each performance measure, evaluate two (2) strengths and two (2) weaknesses. (8 marks)

Ms Kunda suggested that *any other points* you would like to make on the subject could be put under a **general heading**.

(c) Non-financial performance indicators (NFPI) are increasingly popular in organisations such as MGH because the NFPI's seek to show more rounded data on financial performance. NFPI's are also important elements of benchmarking.

Required:

Discuss ways in which benchmarking may be used by MGH as a way of measuring and improving performance. (5 marks)

[Total: 20 Marks]

QUESTION THREE

Kafubu Insurance Company (KIC) was founded in 2020 by four (4) former employees of a leading insurance company. The insurance industry has become highly competitive due to recent changes in insurance law. KIC provides general insurance to individuals and families. Success in the insurance industry depends largely on cost efficiency.

While KIC's business has grown over the past three years, profits have remained stagnant due to shrinking margins. Most of the processes within KIC are still manual, although some have been computerised. This includes manual communications for telephone inquiries and sales staff visiting potential customers in their homes. These manual processes have led to slow transactions leading to complaints from both customers and sales staff.

KIC has also been experiencing a growing number of complaints from customers about errors in the paperwork they receive.

The Board of Directors has announced the need for a business process re-engineering (BPR) exercise to modernize the business. The goal is to streamline the business model and increase profitability. This will involve computerizing almost all the company's operations. Some staff have expressed concerns about the implications of this re-engineering for their roles at KIC.

Required:

(a) Explain the stages of implementing a BPR exercise that KIC might undertake.

(10 marks)

(b) Discuss the improvements that the KIC's Board of Directors might expect from applying BPR. (10 marks)

[Total: 20 Marks]

QUESTION FOUR

Radish Bakery (RB), bakes and sells a variety of confectioneries. The company has operated as a family business since its inception in 1996. RB's competitive strategy is cost leadership. It has since expanded into all major cities in country M.

The budgeting process at RB starts in January of every year. All the managers are involved in the preparation of the budgets. Most of the managers complain about the length of the process hence find no value in its results. In addition, they have complained that the analysis of the variances is mostly biased. The budgets are used as yardsticks against the actual performance. RB uses standard costs for each product and attributes overheads using absorption costing based on production volumes. The change in the standard costs during the year is not permitted. The bakery managers participate in setting the standards.

The Managing Director, Kuma Radish, is aware of the managers' attitude towards budgeting and therefore seeks to know the appropriateness of the current budgeting process. Despite the complaints arising from budgeting, managers are satisfied that there is no dysfunctional behaviour at RB which may lead to budgetary slack or excessive expenditure. They are all working towards a goal congruence. Kuma believes that the introduction of the beyond budgeting approach could be the solution to the various concerns about the current budgeting system.

RB carries out benchmarking of its branches every year.

Required:

(a) Evaluate the current budgeting process at RB. (9 marks)

(b) Explain the appropriateness of introducing the beyond budgeting system. (6 marks)

(c) Evaluate the usefulness of this type of benchmarking exercise in RB. (5 marks)

[Total:20 Marks]

QUESTION FIVE

Change Lives Academy (CLA) is a non-profit organization funded by both the Government and the Private Sector. It focuses on serving individuals under 20 years old to improve the well-being of underprivileged individuals by identifying and nurturing talent. CLA operates a football team and selects outstanding players to be recommended to professional football clubs, ultimately empowering them and their families financially.

Peter Banda, a former national team player, works as a coach at CLA and has annual targets as part of his job evaluation. The organization's key performance indicators include the conversion rate of football players, calculated as the number of players joining professional clubs divided by the total number of players in a year. Peter has expressed concerns about this performance indicator, and some stakeholders agree with him.

To address this, the CLA management has formed a team, comprising full-time employees and volunteers, called the 'Project KPIs' to review all performance measures. However, some team members are resistant to change because they believe it will have negative effects on other stakeholders.

Required:

(a) Identify the problems with performance measurement in Not-For-Profit -Organisations and explain their implications in the case of CLA. (10 marks)

(b) Evaluate the use of the current CLA's key performance indicator (conversion rate of the football players). (4 marks)

(c) Explain three (3) main constraints of 'Project KPIs', in particular, and project constraints in general, that project managers should consider. (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

CA3.5: ADVANCED MANAGEMENT ACCOUNTING SUGGESTED SOLUTIONS

SOLUTION ONE

(a) Financial analysis
Various financial observations can be made from the data.

(i) Growth

Turnover

[(1,890 – 1,600)/1,600] x 100% = 18.1%
The increase of 18.1% in turnover is moderate but is at least higher than the rate of inflation (14%) indicating real growth. This is encouraging and a sign of a growing business.

(ii) Profitability

Net profit margin
Current year: (384/1,890) x 100% = 20.3%
Previous year: (360/1,600) x 100% = 22.5%

The main weakness identified in the financial results is that the net profit margin has fallen from 22.5 % to 20.3% suggesting that cost control may be getting worse, or fee levels are being competed away. However, net profit has increased by 6.6%. In absolute terms, profits are not impressive because it must be shared by the three partners.

(iii) Liquidity

Average cash balance
The average cash balances have increased by 8%, this is an improvement in liquidity. Any positivity in cash balances puts a business in a better position. This could encourage the business to invest the excess cash into investments that could generate more returns for its partners.

(iv) Credit management

Average receivables
The receivables have been reduced by 8 days. This indicates an improved efficiency in chasing up outstanding debts. It is noticeable that LA’s days are lower than the industry average indicating strong working capital management.

Conclusion

Overall, with a possible concern about margins and moderate growth, the business looks to be in a better position and may attain a prosperous future.

(b) The extra non-financial information gives much greater insight into key operational issues within the business and paints a bleaker picture for the future.

Internal business processes

Error rates

The error rate for completed jobs has increased from 5% to 8%, most likely because of shorter turnaround times to increase the percentage of deliveries on time. Users want accounts to be accurate, therefore, this is crucial. Clients may experience issues with the Revenue Authority, banks, etc. due to errors. It gets worse, if clients suffer losses due to these mistakes, the individual firm partners may face legal action. It is possible to argue that clients are unlikely to learn about faults. Errors made by businesses are rarely publicised. Naturally, they ought to correct mistakes right away.

Customer Knowledge

Client retention

The number of customers has dropped significantly, which is a concern and suggests that there is a high degree of dissatisfaction among them. One would often anticipate a significant degree of repetitive work in an accounting practice. It is obvious that current customers are dissatisfied with the quality of service.

Average fees

Rather than more clients, it appears like the increase in revenue is the result of a significant increase in average fees—the average charge increased by 45%, from K10,000 to K14,500. The increase in the average fees is well above the inflation rate. This alone could be responsible for the client's decline. However, there might be additional factors at play.

Market share

The two stated variables caused the market share to decrease from 19% to 15%. The firm ought to be doing much better but seems to be lagging behind rivals.

Learning and Growth

Non-core services

LA's figures have dropped from 2.5 % to 2%, yet the industry average revenue from non-core work has increased from 20% to 26%. It seems that most clients are expecting their accountants to provide a wider range of products, but LA is not taking advantage of the opportunity. This is a major weakness of the firm.

Employee retention

Lushomo Associates is concerned with the current staff retention rate. The worrisome rate is an indication that the staff are dissatisfied. This does not fulfill the main objective of maintaining staff motivation. In this type of business continuity of staff is key in ensuring quality jobs. The high labour turnover may contribute to the high rate of errors committed by the staff hence reducing the quality of the jobs. Eventually, individual private clients may find it difficult to share personal financial details with a variety of different staff each year. Staff turnover is possibly a result of extra pressure to complete jobs more quickly without the satisfaction of a job well done. Also, staff may realise that the lack of range of services offered by the firm will limit their own experience and career paths.

Conclusion

In conclusion, the financial results do not show the full picture. The firm has fundamental weaknesses that need to be addressed if it is to grow into the future. At present it is being left behind by a changing industry and changing competition. LA must ensure that the firm has a better fit with its business environment. The firm should seek to take advantage of the opportunity to offer additional services and reduce errors in existing work.

(c) Proposed performance measures (ROI and RI)

The return on investment (ROI) is a popular measure for divisional performance but has some serious failings that must be considered when interpreting results.

Advantages

(i) It is widely used and accepted since it is in line with ROCE which is frequently used to assess overall business performance.
(ii) As a relative measure it enables comparisons to be made with divisions or companies of different sizes.
(iii) It can be broken down into secondary ratios for more detailed analysis, i.e. profit margin and asset turnover.

Disadvantages

(i) It may lead to dysfunctional decision-making, e.g. a division with a current ROI of 30% would not wish to accept a project offering an ROI of 25%, as this would dilute its current figure. However, the 25% ROI may meet or exceed the company's target.
(ii) ROI increases with the age of the asset if net book values are used, thus giving managers an incentive to hang on to possibly inefficient, obsolescent machines.
(iii) It may encourage the manipulation of profit and capital employed figures to improve results, e.g. to obtain a bonus payment.
(iv) Different accounting policies can confuse comparisons (e.g. depreciation policy).

Compared to using ROI as a measure of performance, Residual Income (RI) has several advantages and disadvantages:

Advantages

(i) It encourages investment centre managers to make new investments if they add to RI. A new investment might add to RI but reduce ROI. In such a situation, measuring performance by RI would not result in dysfunctional behaviour, i.e. the best decision will be made for the business.

(ii) Making a specific charge for interest helps to make investment centre managers more aware of the cost of the assets under their control.

Disadvantages

(i) It does not facilitate comparisons between divisions since the RI is driven by the size of divisions and their investments.

(ii) It is based on accounting measures of profit and capital employed which may be subject to manipulation, e.g. to obtain a bonus payment.

The following would be some of the reasons why the management at Lushomo Associates would prefer the use of ROI to RI:

(i) ROI is consistent with ROCE which in turn is coherent to maximise the returns of the partners at Lushomo Associates.

(ii) The percentages computed are more easily understood by all the stakeholders.

(iii) ROI is better for making inter-division comparisons and is easier to understand hence may settle the differences among the stakeholders.

(d) Information System

The Executive Information System (EIS) will bring several benefits to decision-making at the strategic level at LA, but it also comes with certain costs and problems.

The benefits include improved decision-making, as the EIS will allow drill-down access to more detailed operational records. The initial presentation of data should be based on key performance indicators for the company. The system should also be linked to external data sources to prevent senior management from only looking inward at the organization and potentially ignoring wider business environment issues, such as demand for other services.

The new system will increase the amount of information and analysis senior managers can perform and will provide opportunities for better decision-making using more up-to-date information. However, it may present the problem of information overload for managers. Therefore, the system will need to be designed to give access to only the areas appropriate for any given manager to see.

The data used in decision-making will be more robust, as a single database will reduce redundancy issues of holding multiple copies of the same data on different systems. This will remove inconsistencies and reduce required storage.

The EIS will also allow access to decision support systems, such as large spreadsheet models designed to extract data from the database for forecasting and appraising projects. It will also provide access to tactical information, such as budgets, to help the executive control the business.

To gain maximum benefit from the new system, executive managers will need training just before the new system is available, so they can use it immediately.

Overall, the new system should provide valuable information if used correctly. However, the cost of the system must be weighed against the mostly intangible benefits, making it difficult to measure (e.g. improved decision-making).

SOLUTION TWO

a) Performance measures to evaluate of the manager's schemes

Typical performance measures would be:

- Costs of the scheme, including costs of the mobile unit, the staff, leaflets and broadcasts.
- Benefits of the scheme, including cost reductions in the hospital accident unit, and the increase in cash available for other purposes.
- Reductions in specific types of accident
- Improvements in the quality of life for the people not suffering debilitating injuries from accidents.

The success of the scheme and the manager's performance would probably be measure in the following ways:

i) Awareness of the public could be tested by questionnaires before and after the campaign and the results evaluated.

ii) Quality of life for those not disabled by accidents would be difficult to judge but could be based on comparison of past accident statistics, the types of persons involved, the types of accident and treatment required and disabilities suffered afterwards. Again this would have to be on the basis of such accidents before and after the campaign.

iii) Most importantly, the costs of mounting the campaign should be outweighed by the benefits measured in cost savings arising from it. This can be measured by looking at the accident and emergency department costs before and after the campaign and calculating the cost savings arising afterwards. These savings can then be compared to the costs of mounting the campaign. The results can be evaluated in conjunction with the other perceived benefits of the scheme.

iv) There should be a comparison with budget for the awareness campaign and an explanation of any overruns.

Time scale may be important here. The scheme would not necessarily increase awareness immediately. The evaluation would need to take place over a period of time due to increasing awareness and increasing benefits. In addition, efforts would have to be made to eliminate random and seasonal factors in accidents to try and give as true a picture as possible of results.

b) Evaluation of Strengths and Weaknesses of Performance Measures.

Quantitative measures

Strengths

- They are numerical, therefore easily verifiable, understandable, measurable and giving the impression of objectivity.
- They provide an easy standardized performance measure
- They are relevant in a money based economy

Weaknesses

- They can be manipulated to show the required picture
- They provide only a limited means of assessing performance since qualitative measures are ignored.
- Figures can change overtime, for example due to inflation, so these measures can seem to be improving without any extra effort from the manager

Qualitative measures

Strengths

- they provide additional measures of performance not covered by quantitative methods alone and so can provide a fuller picture of managements performance
- they take into account human interaction which is vital to motivating fellow workers and persons associated with the company to achieve targets and help in achieving aims.

Weaknesses

- difficult to measure, very subjective
- on their own, they ignore quantitative measures which are the natural reporting medium of business in a money based economy

Budget and Actual Comparisons

Strengths

- they provide a ready indicator of how far plans have been achieved
- they provide feedback information for planning, control and decision making
- they can act as a motivating device

Weaknesses

- similar to those for quantitative measures
- they can be demotivating if they are not realistic and achievable with some effort; if they are too easy or too difficult to attain, or if they are imposed from above, demotivation will result.
- they ignore qualitative factors unless these are specifically included in the budget
- they do not necessarily look at the relationship between figures and tend to deal with them only in absolute terms.

General points

In order for a full reasoned assessment of performance measures to be made, information provided needs to be accurate, free from bias and provided in full. Such performance measures needed to be looked at from the point of view of attainment of short term goals and progress towards long term goals. All performance measures can be manipulated to satisfy the manager's aims without fulfilling the company's aims. In addition, the motivating or demotivating effect of each measure and what it is based on needs to be considered to encourage the manager to achieve the organization's goals.

c) Discussion of Ways Benchmarking May be Used by MGH to Measure and Improving Performance.

   Benchmarking enables organisations like MGH to learn about their own business practices and the best practice of others. It will help an organisation to identify areas in which it is not implementing best practice and to determine improvement programmes which will lead to the achievement of, and improvement upon, current best practice.

   Benchmarking should focus on areas which are of significant strategic importance to MGH. It will also be useful to target areas where it is envisaged significant improvement can be made. This will maximise the benefit in the short term from available resources for improvement. This is likely to create a positive motivational influence on staff and improve their commitment to the benchmarking ethics.

   Benchmarking may have one or more areas of focus. It may, for example, be internal in nature where one internal unit (or division) learns from another. Alternatively, it may be external in focus. It may focus on the best practice by competitors where this information can be obtained.

SOLUTION THREE

(a) Stages in business process re-engineering (BPR)

The first stage in a business process reengineering (BPR) exercise is to develop the business vision and process objectives. In the case of KIC, it is evident that reducing time and improving quality are primary business objectives. Consequently, the aim of the BPR exercise should be to assist KIC in achieving these goals.

The company intends to use the BPR exercise to modernize and streamline its business model, with the ultimate goal of increasing profitability. The BPR exercise will likely explore ways to replace manual processes with computerized ones to expedite operations. Additionally, KIC will seek to minimize errors in customer paperwork.

At the outset of the exercise, KIC should establish targets that define the desired speed of inquiry responses and the acceptable level of errors in paperwork.

Moreover, the roles of the sales staff and telephone operators may need to be revised to accommodate the introduction of an improved operation. Hence, the impact of the changes on staff should be carefully considered throughout the exercise, so it is not solely perceived as a cost reduction measure.

It is imperative for KIC to enhance the processes related to communications between sales staff and customers, as these are critical to the effective operation of KIC's business. Currently, most of these processes are manual, leading to slower operations and an increased risk of errors in paperwork. In light of the intense competition in the industry, if customers perceive that KIC's procedures are slow and error-prone, they may switch to another insurance company. Before KIC makes any changes to its procedures, it must first delineate and comprehend its existing processes. It is crucial to grasp all the various types of transactions currently conducted, as well as understand how the process functions: what tasks are performed, why and by whom; where the key data capture points are in the process; and where bottlenecks and delays occur.

The BPR exercise may reveal that some processes need modification, so it is vital to comprehend them all before implementing any changes. The catalysts for change have been diminishing margins, heightened complaints about KIC's slow processes, and the frequency of errors in customers' paperwork.

Given the fierce competition, KIC needs to swiftly make its operations cost-effective. While the majority of KIC's processes are still manual, some are computerized. Hence, KIC should explore how computerized data entry and the use of databases (data warehouses) could alleviate the issue it is confronting. It seems that there are numerous areas where IT/IS could be leveraged to enhance KIC's operational efficiency.

Once a new system is designed, it should be constructed and tested on a relatively small segment of the business. The new system should not signify the culmination of the BPR process. Instead, it should be perceived as a prototype that will be refined based on feedback from the tests. A combination of telephone staff, sales staff working in customers' homes, and concerned staff should participate in testing any new system. Customer feedback should also be integrated into subsequent versions of the prototype.

As some staff at KIC have expressed apprehension about BPR and its implications for the business, those concerned about the BPR exercise should also participate in testing the prototype, with the hope of reassuring them about the benefits of the new process for the business. However, before any new system is fully deployed, all staff involved with it should be trained on its functionality.

(b) Improvements from BPR

More rapid information processing and error reduction
It seems that the processes at KIC have not been updated to take advantage of the IT/IS systems available today. Relying on a mainly manual system not only makes KIC's processes slower than they need to be but also increases the potential for errors as information is manually recorded and then transferred between systems. Implementing a new database-led system would eliminate the need for re-keying and transferring information, thus reducing the likelihood of errors.
This new system would also ensure that KIC has reliable, up-to-date information about its customers. Any details obtained by sales or telephone operators about a customer can be entered into the central database in real-time, and the system can be continually updated for use by other staff.
Furthermore, no manual transfers of information from one part of the organization to another will be necessary. This, once again, reduces delays and the risk of errors.

Improved database system

If KIC develops an electronic database to store all customer data, it will enable staff to respond to telephone inquiries more quickly, leading to improved customer satisfaction.

Better support for sales staff
Incorporating an electronic or online database and upgrading our technology should assist our sales staff when they are meeting with potential customers. If the sales team can access the database remotely from their laptops, they would be able to retrieve policy and premium details while in the presence of the customer. This means they could potentially process a policy application immediately, without the need to return to the office to verify details or complete paperwork. Addressing the slow process currently experienced by KIC should directly resolve the customer complaints.

Increased staff motivation
Staff motivation and job satisfaction are likely to suffer if the staff feel they are having to work with outdated processes and technology. Therefore, providing the sales staff with more up-to-date technology will not only allow them to do their job more effectively, but it should also improve their motivation to do so.

Moreover, customers are likely to have a more favorable impression of the sales staff if the staff can provide quick and efficient service. If this, in turn, leads to the sales staff making more sales, it is likely to increase their motivation still further.

Organisation structure

BPR's customer-focused approach aims to help KIC find efficient ways to deliver outcomes. This may lead to changes in the organizational structure and tasks to reduce internal communication, fostering greater flexibility by organizing around outcomes.

Greater process flexibility and speed

The existing manual system at KIC requires tasks to be completed one after the other. However, one of the main principles of BPR is that related activities should be carried out concurrently rather than sequentially. If KIC upgrades its systems and stores customer information electronically, employees may be able to handle various parts of a customer transaction simultaneously, thus speeding up the transaction process.

SOLUTION FOUR

(a) Budgeting process

Budgeting is an essential tool for managing costs in businesses like RB, which aims to be a cost leader. Budgets serve to communicate and coordinate all management activities toward a single plan. They also help in assigning responsibility for performance. For instance, a favourable material usage variance indicates that less raw material was used than planned, reflecting the efforts of the production manager in reducing waste and possibly the purchasing manager in sourcing high-quality raw materials. Involving managers in the budgeting process can motivate them to achieve budget targets that they have helped to set. The budget needs to be achievable to maintain motivation. Additionally, budgets help in evaluating performance by identifying variances and pointing out areas for corrective action or future improvement.

The following points about budgeting at RB should be noted:

1. The budgeting process at RB takes too much time, which is unusual for a mature and stable business. Managers are frustrated because they see little benefit from the forecasting work, especially since the operating variances are relatively small.

2. The analysis of variances is limited in scope. Performing a more detailed analysis could help address the complaint that operational managers are being asked to explain variances that are not their fault. For example, conducting analysis for all the different cost categories in the operating statement, not just the total cost variance, could be beneficial.

3. Using standard costs in budgeting may discourage continuous improvements, which could hinder a cost leader's efficiency gains. However, RB's senior management may believe that regular changes are unlikely to be necessary and that an annual cost review is sufficient.

(b) Beyond budgeting

Adopting the beyond budgeting model involves replacing the annual system of a centrally created budget with a more flexible system of targets. Performance measurement changes from monitoring variances in the budget to measuring the achievement of strategic goals, adding value and performance against suitable benchmarks. The system will use forecasts produced and revised more regularly than the annual budget by the line managers.It will devolve decision-making. The forecasts produced are often more important for cash flow monitoring rather than cost control. The targets are intended to guide rather than constrain the line managers, thus improving their motivation. The approach of going beyond budgeting is considered appropriate in industries where there are rapid changes in the business environment and where intangibles such as know-how are key to competitive advantage.

This approach at RB would appear to be inappropriate for several reasons:

1. There does not appear to be a need to revise the budgets more regularly. Indeed, the work generated in going beyond budgeting may increase the complaints about time-consuming exercises from the operational managers.

2. The lower-level managers would now need to prepare their forecasts and would require training in this. They do not appear to have the appetite for such development.

3. There is no indication that there are rapid changes in RB's business, so the beyond-budgeting approach would not appear to yield many benefits.

4. There does not appear to be a need for great creativity at RB; instead, the focus is on cost control, and so traditional budgeting will suit this well.

5. The management style of an organization which should go beyond budgeting is to allow power to be devolved to lower levels of management, and this will not fit the culture of RB.

Overall, then, there are insufficient benefits and many barriers to going beyond budgeting at RB, and it is not recommended.

(c) Method of benchmarking

Benchmarking involves comparing performance against another entity. The proposed benchmarking exercise is an internal one, comparing divisions within the same organization.

The major advantage of internal benchmarking is the ability to obtain detailed operational information and share best practices among divisions. This will show the different divisions the advantages of being part of a larger company and assist in integrating them.

This method of benchmarking suffers from the drawback that it will often involve non-financial data, whose production is often less robust than the financial systems, involving subjective judgments. Also, it will not necessarily identify world-beating performance. Its internal focus may lead the company to ignore competitor performance.

However, as a one-off exercise to harmonize and improve the branches' performance, it seems to be suitable for RB now.

SOLUTION FIVE

(a) Performance measurements and implications

1. Multiple Objectives:
There are various objectives and stakeholders, which makes it challenging to determine the most important ones. For example, government funding cuts may limit CLA's ability to purchase new sports equipment, but buying new equipment could help reduce poverty levels. This situation requires a decision between controlling expenditure or reducing poverty.

2. Measuring Outputs:
Measuring outputs in a meaningful and controllable way can be difficult. For instance, is the number of football players graduating into professional leagues a sufficient measure of coaching quality? One possible solution is to use a variety of performance targets and measures. However, this raises the issue of how to prioritize the different objectives to create an overall performance measure.

3. Data Collection:
Data about service provisions is often qualitative, which makes it challenging to quantify and assess. Additionally, obtaining complete data can be difficult.

4. Lack of Comparison:
The diverse nature of NFPOs makes it hard to find similar businesses to use as benchmarks.

5. Tunnel Vision:
Focusing solely on specific areas of performance could lead to improvements in those areas at the expense of worsening performance in other areas.

(b) Key performance indicator

The use of the current measurement could motivate the coach towards achieving the intended goal. However, this would also discourage him if he is not involved in establishing a performance system.

This rate may not be objective due to the competitive nature of earning professional football. There are so many factors that contribute towards the conversion of the players such as discpline both on the field of play and outside. Reliance on the coach may not suffice.

(c) Main constraints
Project managers must consider three main constraints: time, scope, and cost.

Time:

Time refers to the duration of the project. Project managers must ensure that the project is completed before the deadline by estimating the project duration and assigning the necessary resources to meet the timeline.

Scope:
The scope of the project defines the deliverables and outcomes of the work. It is essential to clearly define the scope before commencing the project and to monitor it closely throughout. Changes or expansions in the project scope without proper approval can disrupt the project's balance and efficiency.

Cost:
Cost refers to the budget allocated for the project. Clients and project managers must agree on a budget before the project starts, and it is important to manage the project within the designated budget to ensure its success.

When one of these constraints is affected, project managers use the triple constraint model to readjust and align the project. These constraints are interconnected, so any changes in one area will impact the others, requiring adjustments to maintain balance.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA3.6: ADVANCED FINANCIAL MANAGEMENT

2024

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

Sugar Cane Plc is the largest single mill cane sugar producer in Africa, which was established in 1960s. Over time the company has expanded to the capacity of producing 277,000 tonnes for the domestic market. The company is listed on the Lusaka Securities Exchange with 80% of its shares held by the ILV Sugar Group Plc and the balance by institutional and private Investors. Sugar Cane Plc has 70 million shares in issue trading at K5.6 each. The management of Sugar Cane Plc is considering a further expansion project. The project will require procurement of additional new equipment with a life span of five years. This equipment attracts capital allowances at an annual rate of 20% on a reducing balance basis. The company accepts projects with a payback period of 3 years.

A junior accountant has prepared some calculations of the profitability of the expansion project based on the data submitted by the Project Committee. The financial evaluation report is due for discussion soon at the board meeting for the company. The junior accountant's workings, which are set out below, include some errors of principle.

Financial Evaluation Report for Expansion

Year	1	2	3	4	5	6
	K'm	K'm	K'm	K'm	K'm	K'm
Sales revenue		**499**	**535**	**541**	**558**	**575**
Less Costs:						
Materials		129	142	147	152	162
Labour		96	107	108	115	126
Overheads		55	57	58	59	62
Depreciation		100	100	100	100	100
Working capital	190	-	-	-	-	-
Dividends		40	40	40	40	40
Interest on bonds		33.12	33.12	33.12	33.12	33.12

Write-off of Research & development costs		30	30	30		
Total costs	**190**	**483.12**	**509.12**	**516.12**	**499.12**	**523.12**
Profit/(loss)	(190)	15.88	25.88	24.88	58.88	51.88

Return on Investment = $\frac{\text{Total Profit/(loss)}}{\text{Cost of equipment}} = \frac{(K12.6m)}{K700m} = (1.8\%)$

As Senior Accountant for Sugar Cane Plc, you were tasked to review the report and make necessary corrections as well as prepare the final report for the board meeting. You have gathered the following additional information:

(i) The cost of equipment contains K200 million being the book value of an old equipment. If it were not used for this project it would be scrapped with a zero net realisable value.

(ii) The new equipment will be bought at the beginning of year 1. However, you should assume that all other cash flows occur at the end of the year to which they relate. Sale and production is expected to start at the beginning of year 1.

(iii) The working capital is required immediately and recovered at the end of the investment period.

(iv) The Research and development costs of K90 million have already been spent.

(v) Overheads have been apportioned using the direct labour, which is the business's normal practice. An independent assessment has suggested that incremental overheads are likely to amount to K30 million a year.

(vi) The five year bonds for Sugar Cane Plc are expected to trade at K1,080 per K1,000 with a pre-tax cost of debt of 13%. The book value of the bond is K200 million.

(vii) The five-year government debt yield is currently estimated at 9.5% and the market risk premium at 5%. The company equity beta is 1.02.

(viii) The corporate tax is payable one year in arrear at the rate of 25% per year.

Required:

As a Senior Accountant, write a report to the Management of Sugar Cane Plc covering the following:

(a) Prepare a corrected statement of the incremental cash flows arising from the expansion project. Where you have altered the Junior Accountant's figures you should state the reason(s). (15 marks)

(b) Calculate the cost of capital using the market values of equity and debt. (7 marks)

(c) Evaluate the financial viability of the expansion project using the following investment appraisal techniques:

   (i) Discounted Payback Period (5 marks)

   (ii) Net Present Value Method (4 marks)

   (iii) Internal Rate of Return (5 marks)

Note: there are four (4) professional marks available for report format and coherence

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt any THREE (3) questions

QUESTION TWO

The Chief Executive Officer of the Securities and Exchange Commission of Zambia, during a stock market update encouraged local companies to consider listing either through the alternative market or the main market accordingly. The directors of EMNO Limited, who are also shareholders of the company, are keen to explore this option of listing. EMNO limited is a family owned business that is at the growth stage. The company has experienced rapid growth in recent years and as summarised below:

Year	Profit (K'm)	Investments (K'm)	Dividend paid(Km')
2019	60	-	30
2020	70	100	20
2021	100	-	50
2022	110	150	20
2023	160	-	80

In recent years, investment has been funded by cash generated by the business; however, the company now requires additional funds to finance significant expansion. The Directors have considered additional bank loans, but their preference is for an initial public offering (IPO), that is, an offer for sale of shares to the public. However, the Directors are concerned about the implications of an IPO on the company capital structure in the areas of dividend, financing and investment policy.

Required:

(a) Evaluate the current dividend policy of EMNO. (7 marks)

(b) Advise on the potential risks with an IPO and what action can be taken to minimise such risks. (5 marks)

(c) Discuss the concerns of the Directors regarding the possible implications of becoming a listed company on dividend, financing and investment strategies and the interrelationship between them. (8 marks)

[Total: 20 Marks]

QUESTION THREE

BUBU Ltd a Zambian company is contemplating a bid for the share capital of PUMA Ltd. With an intention of buying the whole company. The following data for the two companies have been provided.

	BUBU	**PUMA**
Number of shares	3,000,000	8,000,000
Share price	K150	K30
Latest equity earnings	K675 million	K80 million

After acquisition, BUBU Ltd. Intends to sell a division of PUMA Ltd. which accounts for K20 million annually in equity earnings. The division does not form part of the core business of the intended group. The division has a current market price of K50 million.

BUBU Ltd's management believes that by introducing better management, earnings of PUMA Ltd. could be permanently increased by 25%, although the price/earnings multiple will remain the same. To avoid duplication, some of BUBU Ltds own property could be disposed of at an estimated price of K130 million.

Rationalization costs are estimated at K100 million, these comprise retrenchment and legal costs among others.

Required:

(a) Explain three (3) advantages of growth by acquisition. (6 marks)

(b) Assess the effect on the current share price of each company; all other things being equal, of a two for ten shares offer by BUBU Ltd, assuming that BUBU Ltd.'s estimates are in line with those of the market. (10 marks)

(c) Assuming that BUBU Ltd is proposing to offer PUMA Ltd.'s shareholders the choice of a two for ten share exchange or a cash alternative. Explain whether the cash alternative should be more or less than the current value of the share exchange. (4 marks)

[Total: 20 Marks]

QUESTION FOUR

The Government of Zambia has three bonds in issue that all have a face or par value of K1,000 and are redeemable in three (3) year, five (5) years and seven (7) years respectively at par value. The bonds are all government bonds, are assumed to be of the same risk class, and the coupons are payable on an annual basis. The following information about the bonds is available;

Bond	Coupon	Redemption period	Market value (K)
A	17%	3 year	1,030
B	20%	5 years	1,010
C	23%	7 years	980

The coupon rates have been volatile over the past years and the Minister of Finance mentioned of the use of interest rate swaps to manage the risk. Zambia has been dealing with the IMF on a number of funding needs and now wishes to raise K10 billion of floating rate finance. The central bank Governor of Zambia has suggested using a 5-year swap to manage any interest rate risk. Zambia has a BBC rating and can issue fixed rate finance at 22.8%, or floating rate at LIBOR +1.35%.

The IMF has identified another country, Zimzim which has an ABB credit rating and can raise fixed finance at 21.35%, or floating rate at LIBOR + 0.6%.

A 5 year interest rate swap on K10 billion loan could be arranged with the IMF acting as an intermediary for a fee of 0.25% pa. The Minister of Finance has stated that Zambia will only agree to the swap if it can make annual savings of at least 0.3%. LIBOR is currently 20.5%.

Zambia wants to borrow at variable rate and Zimzim wants to borrow at fixed rate.

Required:

(a) Compute the annual spot yield curve for each bond. (9 marks)

(b) Evaluate whether or not the swap is likely to be agreed. (8 marks)

(c) Discuss two (2) disadvantages of using interest rate swaps to manage the interest rate risk in the case of Zambia. (3 marks)

[Total: 20 Marks]

QUESTION FIVE

MOBIT International is a multinational company that has a significant impact on the host country's economic growth. It currently accounts for 10% of the country's GDP. MOBIT International has created jobs; pay taxes, and contribute to the social welfare of the country. The rise of MOBIT International is mainly as a result of globalization. However, some reliable pressure groups have observed that the company has been paying lower remunerations to workers and lower taxes. It is believed that MOBIT International can contribute as much as 25% to GDP if it pays the right amount of taxes. This situation has created huge concerns by most politicians including the government who have called for serious intervention before the situation gets worse. Recently MOBIT International threatened to layoff some workers due to the attempt by the government to increase the taxes. The board chairperson called the possible interventions by the government as a political risk.

Required:

(a) Discuss whether you agree with the board chairperson's assessment and the various measures that the government may take to try and prevent the exploitation of the country by multinationals. (10 marks)

(b) Assess the various strategies that MOBIT International can adopt to limit the effects of political and other risks. (10 marks)

[Total: 20 marks]

END OF PAPER

Formulae

Modigliani and Miller Proposition 2 (with tax)

$$k_e = k_e^i + (1 - T)(k_e^i - k_d)\frac{V_d}{V_e}$$

Two asset portfolio

$$s_p = \sqrt{w_a^2 s_a^2 + w_b^2 s_b^2 + 2 w_a w_b r_{ab} s_a s_b}$$

The Capital Asset Pricing Model

$$E(r_i) = R_f + \beta_i (E(r_m) - R_f)$$

The asset beta formula

$$\beta_a = \left[\frac{V_e}{(V_e + V_d(1 - T))}\beta_e\right] + \left[\frac{V_d(1 - T)}{(V_e + V_d(1 - T))}\beta_d\right]$$

The Growth Model

$$P_o = \frac{D_o(1 + g)}{(r_e - g)}$$

Gordon's growth approximation

$$g = br_e$$

The weighted average cost of capital

$$WACC = \left[\frac{V_e}{V_e + V_d}\right]k_e + \left[\frac{V_d}{V_e + V_d}\right]k_d(1 - T)$$

The Fisher formula

$$(1 + i) = (1 + r)(1 + h)$$

Purchasing power parity and interest rate parity

$$S_1 = S_0 \times \frac{(1 + h_c)}{(1 + h_b)} \qquad F_0 = S_0 \times \frac{(1 + i_c)}{(1 + i_b)}$$

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.

SUGGESTED SOLUTIONS

SOLUTION ONE

a) Incremental Cash flows Statement

Year	0	1	2	3	4	5	6
	K'm	K'm	K'm	K'm	K'm	K'm	K'm
Sales revenue	-	499	535	541	558	575	-
Less Costs:							-
Materials	-	129	142	147	152	162	-
Labour	-	96	107	108	115	126	-
Overheads	-	30	30	30	30	30	-
Taxable cash flow	-	244.00	256.00	256.00	261.00	257.00	-
Tax@25%			- 61.00	- 64.00	-64.00	- 65.25	-64.25
Tax saving on CA			25.00	20.00	16.00	12.80	10.24
Cost of new equipment	- 500.00						
Working capital	-190	-	-	-	-	190	
Net Cash flows	**- 690**	**244**	**220**	**212**	**213**	**394.55**	**-54.01**

Notes

1. The cost of new equipment and working is supposed to be in year 0 when the initial investment is being undertaken.
2. Incremental overhead costs are the relevant cash flow because they vary with the project decision.
3. Excluded depreciation because it is a non-cash flow item.
4. Dividend and Interest on bonds are excluded because financing cost will be reflected in the cost of capital.

5. Research & Development costs are excluded because they are a sunk cost and thus not relevant cash flow.

Workings

1. Capital Allowances

Year	WDA	CA@20%	Tax saving @25%	Year Available
	K'm	K'm	K'm	
1	500.00	100.00	25.00	2
2	375.00	80.00	20.00	3
3	281.25	64.00	16.00	4
4	210.94	51.20	12.8	5
5	158.20	158.20	31.64	6

b) Cost of Capital

Cost of equity = 9.5% + (5%)x1.02 =14.6%

Cost of Debt= 13% x (1-0.25) = 9.75%

Market Values:	K'm	%
Equity (70m x K5.6)	392	0.64
Bonds (K200m x 1080/1000)	216	0.36
Total	608	100%

WACC= (14.6% x 0.64) + (9.75% x 0.36) = 12.9% round off 13%

c) Discounted Payback Period				
Period	Cash flows	Discount@13%	Present Value	Balance
0	- 690.00	1	- 690	- 690.00
1	244.00	0.885	215.94	- 474.06
2	220.00	0.783	172.26	- 301.8
3	212.00	0.693	146.91	-154.89
4	213.00	0.613	130.57	-24.32
5	394.55	0.543	214.24	189.92
6	- 54.01	0.480	- 25.92	164

Discounted Payback Period 4.1 Years

Comment: Accept the project because the payback is below the company policy of 4 years.

d) Net Present Value

Year	**0**	**1**	**2**	**3**	**4**	**5**	**6**
	K'm	K'm	K'm	K'm	K'm	K'm	K'm
Net Cash flows	- 690.00	244.00	220.00	212.00	213.00	392.55	- 54.01
Discount@13%	1	0.885	0.783	0.693	0.613	0.543	0.480
Present Values	- 690.00	215.94	172.26	146.91	130.57	214.24	- 25.92
NPV	**161**						

Comment: The project is financially viable as the NPV is positive and therefore, the wealth of shareholders will be maximized.

e) Internal Rate of Return

Year	**0**	**1**	**2**	**3**	**4**	**5**	**6**
	K'm	K'm	K'm	K'm	K'm	K'm	K'm
Net Cash flows	- 690.00	244.00	220.00	212.00	213.00	394.55	- 54.01
Discount@25%	1	0.800	0.640	0.512	0.410	0.328	0.262
Present Values	- 690.00	195.20	140.80	108.54	87.33	129.41	- 14.16
NPV	**- 42.88**						

IRR= 13%+161/(161+42.88) (25%-13%)

IRR= 22.51%

SOLUTION TWO

(a) Evaluate the current dividend policy of EMNO.

The current dividend policy of EMNO appears to be as follows:

- In years where there is no major capital investment 50% of available profits are paid as a dividend.
- In years when there is major capital investment a dividend of ZMW20 million is paid out irrespective of the level of profit or cash flow.

This unpredicable and erratic pattern of dividend payouts is typical of a family company where the needs of the business and of individual shareholders can be expected to be major factors behind the dividend payout in each year.

In this case, the history of recent dividend payouts indicates a policy of a constant payout ratio of 50% unless there are strong calls on cash from elsewhere, as there was in 2020 and 2022. However, even in those years of high capital expenditure, a minimum dividend of ZMW20 million was maintained, presumably to provide the minimum annual income required by the major shareholders.

In a private company, shareholders are likely to have a greater influence on dividend policy and so we can conclude that EMNO's shareholders are not wholly dependent on large dividend income and are happy for all surplus cash above a certain minimum payout level to be reinvested in the business where suitable reinvestment opportunities exist. Investing in all available projects that carry a positive NPV should, ultimately, maximise shareholder wealth. Unlike a listed company, EMNO is likely to be more dependent on the use of retained earnings that are held in the form of cash to finance expansion. Using retained earnings that are available in cash form keeps gearing levels low and also reduces shareholder risk.

(b) Advise on the potential risks with an IPO and what action can be taken to minimise such risks.

An IPO refers to the issue of shares onto the market – which could be the main stock market such as the Lusaka Stock Exchange or a smaller scale market such as AIM.
The issue of shares will be made through an issuing house (usually an investment bank) which acquires the shares and offers them to the public either at a fixed price (known as an offer for sale) or offers them for tender (known as an offer for sale by tender).

Potential risks and remedies:

- The main risk is that not all of the shares are sold to the public and hence the company does not generate sufficient funds. This could be either because the price was perceived to be too high or because the economic conditions have deteriorated and the market for that company is in decline. It could also arise from bad publicity. The main remedy for this is to have the issue underwritten (which means that a third party will promise to buy any outstanding shares). However this can be very expensive. It could also result in a fall in the share price immediately after the issue.
- Another risk is that the issue is over-subscribed. This could be because the price is set too low and hence becomes a bargain. Whilst the company will generate all the funds that it plans an over-subscription could be damaging to its reputation and credibility. It also has the effect of passing profit to the new investor which, with proper pricing, would have come to the company. Therefore it is important that the price of the issue is set at an appropriate level. The use of a tender issue can help avoid this risk.

(c) Discuss the concerns of the Directors regarding the possible implications of becoming a listed company on dividend, financing and investment strategies and the interrelationship between them.

Implications of a Listing for Dividend Policy
In listed companies it would be more common to find a policy of paying a stable level of dividend, that is, a constant dividend per share or a dividend per share that is growing at a constant growth rate each year in line with average underlying growth in profits. In general, investors prefer a predictable dividend level that grows at a consistent but sustainable rate.

If EMNO were to list, then the profile of its shareholders will change, as will shareholder expectations about dividend levels.

For listed companies dividend policy is seen as an important indicator of where the company is and what its plans are. That is, dividends give signals to the market about the strength of the company. There is a major difference here between listed companies and privately owned companies where shareholders have inside information about the performance of the company and do not need to rely on the signalling effect of dividends. Because of this signalling effect for listed companies a typical dividend policy would be one of constant or constantly growing dividend which does not change much year on year.

EMNO is accountable to its shareholders and needs to ensure that the dividend policy matches the expectations of shareholders. Most shareholders will require stable growing dividends year on year and not fluctuating dividends. Major shareholders such as large financial institutions (eg: pension funds) also usually prefer regular dividend payouts so that they can plan their cash flows. Other investors may also have chosen to invest in a particular share due to anticipated future dividend levels.

Another consideration is the share price itself. Once listed, EMNO would be interested in protecting its share price. The market prefers predictable dividend levels, this helps signal stability and hence improve market confidence in the company. This, in turn, protects or improves the share price.

SOLUTION THREE

a) Advantages of growth by acquisition

i. Diverfication of risk especially where the returns of acquired firm are uncorrelated to those acquiring firms
ii. Operating and financial synergies resulting from economies of scale
iii. Assets backing thus generation of higher returns due to efficient asset utilization
iv. New business opportunities e.g. accessing foreign markets, intellectual capital.
v. Larger market share and competitive advantage
vi. Tax advantage when the target has accumulated loses.

b) Determine the maintainable profit of PUMA Ltd equity

	Km
Equity earning	80
Add loss of profit	(20)
	60
Add 25% Profit	15
Maintainable equity profits	75

Market value = P/E X EPS X number of shares

= P/E x equity profits

= K240 m /80 m x 3 x75 = 225

Add proceeds from disposal of branch	50
Total market value	275

BUBU Ltd

Existing market value 3 m share x 150	450

Add sale of property	130
Less rationalization cost	(100)
	480

Combined market value = 275 +480 = 755

New shares issued = 2 x 8/10 = 1.6m + 3m = 4.6 shares of Bara

Post – acquisition M.P.S of BUBU = 755/4.6 = K164.13m

Post -Acquisition M.P.S of PUMA = 2/10 x 164.13 = K32.83m

c) The cash offer has the following implications

i. It has a certain value compared to value of a share. Due to certainty, it will be lower than the value attached to share for share exchange.
ii. Shareholders of PUMA can dispose -off their shares without incurring any transaction cost
iii. Any capital gains realized may be subjected to tax where possible
iv. PUMA shareholders will use cash to buy Treasury bills and bonds thus reduce the risk of their portfolios.

SOLUTION FOUR

(a) Calculate the annual spot yield curve for each bond. **(9 marks)**

There are different methods used to estimate a spot yield curve, and the iterative process based on bootstrapping coupon paying bonds is perhaps the simplest to use but in this case the IRR approach would have been used.

Bond A

Year	CF	DF@14%	PV	DF@16%	PV
0	(1,030)	1	(1,030)	1	(1,030)
1 – 3	170	2.322	394.74	2.246	381.82
3	1,000	0.675	675	0.641	641
			39.74		(7.18)

IRR = 14% + ((39.74/46.92) x 2%) = 15.69%

Bond B

Year	CF	DF@14%	PV	DF@23%	PV
0	(1,010)	1	(1,010)	1	(1,010)
1 – 5	200	3.433	686.6	2.803	560.6
5	1,000	0.519	519	0.355	355
			195.6		(94.4)

IRR = 14% + ((195.6/290) x 9%) = 20.1%

Bond C

Year	CF	DF@14%	PV	DF@30%	PV
0	(980)	1	(980)	1	(980)

1 – 7	230	4.288	986.24	2.802	644.46
7	1,000	0.4	400	0.159	159
			406.24		(176.54)

IRR = 14% + ((406.24/582.78) x 16%) = 25.15%

(b) Evaluate whether or not the swap is likely to be agreed. **(8 marks)**

	Zimzim	**Zambia**	**Differential**
Fixed rates	21.35%	22.8%	1.45%
Floating rates	L + 0.6%	L + 1.35%	0.75%
Net differential			0.70%
IMF fee			(0.25%)
Net benefit of SWAP			(0.45%)

From the above calculations, it is clear that the SWAP has a net benefit of 0.45%, therefore both parties are likely to benefit if they entered in the SWAP arrangement. However, Zambia is of the view that unless their benefit is at least 0.3%, they will not accept the SWAP. This means Zimzim will be left with a benefit of only 0.15%. Considering that all of the comparative advantage in borrowing rests with Zimzim, they may not agree to a lower benefit. There is need for Zambia to reconsider their position on the benefit if the SWAP is to go ahead, taking into account the fact that there of a lower credit rating and are the ones in need of the funding. But also if IMF could waiver off the fees, on humanitarian grounds, the 0.25% could be channeled to Zimzim, therefore bringing the total benefit to Zimzim to 0.4%, which could be acceptable.

(c) Discuss two (2) disadvantages of using interest rate swaps to manage the interest rate risk in the case of Zambia.

An interest rate swap is an agreement whereby the parties agree to swap a floating stream of interest payments for a fixed stream of interest payments and via versa. There is no exchange of principal.

In this case, the countries involved are termed 'counter-parties'. Swaps can run for up to 30 years, although Zambia is only considering a 5 year borrowing. Swaps can be used to hedge against an adverse movement in interest rates. For example, Zambia issues the ZMW10b floating loan and the Central Bank believes that interest rates are likely to rise over the next five years. He could enter into a five-year swap with a counter party to swap into a fixed rate of interest for the next five years. From year six onwards, Zambia will once again pay a floating rate of interest. A swap can be used to obtain cheaper finance. A swap should result in Zambia being able to borrow what they want at a better rate under a swap arrangement, than borrowing it directly themselves.

However, it also important to note that due to the poor credit ratings, the two countries Zimzim and Zambia are subjected to high rates of interest. Many developing countries like Zambia have in the past borrowed at very high interest rates that has resulted in such countries facing financial distress. The position of the Minister to want to reduce the costs of borrowing is a good position, considering that other Government bonds are trading around 15% coupon for 3 years.

SOLUTION FIVE

a) Political risk and Government Interventions

Political risk is the risk that political action will affect the position and value of a company. When MOBIT International company invests in another country, by setting up a subsidiary, it may face a political risk of action by that country's government which restricts MOBIT International's freedom. **2marks**

If a government tries to prevent the exploitation of its country by MOBIT International, it may take various measures such as:

i. Import quotas could be used to limit the quantities of goods that a subsidiary can buy from its parent company and import for resale in its domestic markets.
ii. Import tariffs could make imports (such as from parent companies) more expensive and domestically produced goods therefore more competitive.
iii. Legal standards of safety or quality (non-tariff barriers) could be imposed on imported goods to prevent MOBIT International from selling goods through a subsidiary which have been banned as dangerous in other countries.
iv. Exchange control regulations could be applied.
v. A government could restrict the ability of foreign companies to buy domestic companies, especially those that operate in politically sensitive industries such as defense contracting, communications, energy supply and so on.
vi. A government could nationalise foreign-owned companies and their assets (with or without compensation to the parent company).
vii. A government could insist on a minimum shareholding in companies by residents. This would force MOBIT International to offer some of the equity in a subsidiary to investors in the country where the subsidiary operates.

b) Strategies to deal with Political and Other risks

There are various strategies that MOBIT International can adopt to limit the effects of political and other risks.

i) Negotiations with host government

The aim of these negotiations is generally to obtain a concession agreement. This would cover matters such as the transfer of capital, remittances and products, access to local finance, government intervention and taxation, and transfer pricing. The main problem with concession agreements can be that the initial terms of the agreement may not prove to be satisfactory subsequently. MOBIT International may have different reasons for choosing to set up initially and choosing to stay, whilst the local government may be concerned if profits are too high.

ii) Production strategies

It may be necessary to strike a balance between contracting out to local sources (thus losing control) and producing directly (which increases the investment and hence increases the potential loss.)

Alternatively, it may be better to locate key parts of the production process or the distribution channels abroad. Control of patents is another possibility, since these can be enforced internationally.

iii) Contacts with markets

MOBIT International may have contacts with customers which interventionist governments cannot obtain.

iv) Financial management

If MOBIT International obtains funds in local investment markets, these may be on terms that are less favourable than on markets abroad, but would mean that local institutions suffered if the local government intervened. However, the governments may limit the ability of MOBIT International to obtain funds locally.

Alternatively guarantees can be obtained from the government for the investment that can be enforced by MOBIT International if the government takes action.

v) Management structure

Possible methods include joint ventures or ceding control to local investors and obtaining profits by a management contract.

If governments do intervene, MOBIT International may have to make use of the advantages they hold or threaten withdrawal. The threat of expropriation may be reduced by negotiation or legal threats.

The message is clear - if MOBIT International invest in multiple markets, they need to deal with citizen groups in multiple countries, and this requires MOBIT International to integrate their supranational and multi-domestic non-market strategies.

2marks per valid Strategy= 10 marks

END

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA 3.7: PUBLIC SECTOR AUDITS AND ASSURANCE

FRIDAY 13 DECEMBER 2024

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

INSTRUCTIONS TO CANDIDATES

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

2. This paper is divided into TWO (2) sections:
   Section A: One (1) Compulsory scenario question.
   Section B: Four (4) Optional Questions. Attempt any Three (3) questions.

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

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

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

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

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

8. Present legible and tidy work.

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

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

SECTION A

This question is compulsory and must be attempted

QUESTION ONE-(COMPULSORY)

The State Economic Development Agency (SEDA) in Zambia, a Government-owned entity, is pivotal for fostering economic growth and industrialization. SEDA Limited, established in January 2014, leads the Government's efforts in commercial investments, aiming to bolster the nation's industrial capacity and generate employment opportunities. Operating under the supervision of the Minister of Finance, SEDA concentrates on generating sustainable shareholder value, supporting thriving Government-owned enterprises, and driving initiatives for industrialization and rural advancement.

SEDA plays a critical role in facilitating investments across vital sectors such as mining, agriculture, manufacturing, energy, infrastructure, and tourism. Here's a summarised overview of its functions and responsibilities:

(1) Investment Facilitation: Actively identifies and promotes investment prospects both domestically and internationally, aligning projects with Zambia's economic objectives.

(2) Funding and Investment: Offers financial aid and investment funds to enterprises and initiatives demonstrating growth potential and contributing to economic diversification.

(3) Industrial Growth: Works on nurturing industrial development within Zambia by assisting in the establishment or expansion of industrial facilities, bolstering local manufacturing, and adding value to raw materials.

(4) Collaborative Partnerships: Engages in partnerships with local and international entities, including private sector firms and financial organizations, to harness expertise, resources, and funding for projects.

(5) Employment Generation: Advocates for industrialization and provides support to businesses, aiding in job creation and addressing socio-economic issues like unemployment.

(6) Stakeholder Involvement: Engages with diverse stakeholders, such as Government bodies, private sector participants, and civil society groups, to ensure alignment with national development priorities and promote transparency.

(7) Sustainability and Environmental Stewardship: Prioritizes sustainability and environmental responsibility, promoting eco-friendly practices and compliance with regulations to mitigate adverse environmental effects.

Industrialization is recognized as crucial for achieving sustainable economic expansion, social equity, and environmental stewardship. It facilitates economic diversification, enhances productivity, generates quality employment, and improves competitiveness globally. SEDA plays a pivotal role in spearheading this transformation, contributing to Zambia's progress and prosperity.

Required:

As an Assistant Director in the Public Department and Investment Audits in the Office of the Auditor General;

(a) Describe to your audit team how you plan to audit SEDA, using the Principles of Public Sector Auditing. (10 marks)

(b) Explain the framework for undertaking a Performance audit of SEDA in the context of the three Es. (10 marks)

As part of its portfolio, SEDA oversees the energy sector. Below is a value statement for one (1) of the entities within this sector.

"We offer you effective, inventive, and outstanding energy solutions."

PowerCorp, a Zambian Government-owned utility, is entrusted with the task of delivering electricity and energy solutions in Zambia and the broader Sub-Saharan region. Dedicated to excellence, PowerCorp prides itself on its team of committed professionals spread throughout the nation.

The company's operations encompass the entire electricity value chain, spanning generation, transmission, distribution, and provision. With multiple hydroelectric stations producing over 2900 Megawatts (MW) of power, PowerCorp is aiming to expand its renewable energy capacity by at least 1800MW within the coming decade.

To ensure dependable and high-quality service, PowerCorp maintains an extensive transmission grid comprising over 11,100 kilometers of high-voltage lines, connected to the Southern African Power Pool. This interconnected infrastructure facilitates electricity trading, strengthens supply reliability, and facilitates power generation collaboration.

In pursuit of operational efficiency and supply stability, PowerCorp centrally administers its extensive network through automated systems at its National Control Center (NCC).

Required:

(c) Describe the type of audit you would conduct at PowerCorp. (10 marks)

(d) Given the extensive network through automated systems at its NCC, explain the impact of big data on PowerCorp. (10 marks)

[Total: 40 Marks]

SECTION B

There are four (4) questions in this section.

Attempt any three (3) questions.

<u>QUESTION TWO</u>

(a) You work for the Office of the Auditor General (OAG) as Principal Auditor under the Compliance Division. You are a part of a three (3) man team assigned by the International Organization for Supreme Audit Institutions (INTOSAI) to assess the performance of the Supreme Audit Institution (SAI) of Madagascar which was established two (2) years ago.

The scope of your assignment was to assess the extent to which the Supreme Audit Institution complies with the general requirements for performance auditing in accordance to ISSAI 3000 whose principles are derived from the ISSAI 100: Principles of public sector auditing describing general principles and ISSAI 300: Fundamental principles of performance auditing.

The Supreme Audit Institution of Madagascar is a department under the Ministry of Finance. Notwithstanding this, the SAI conducts audits of recipients of Government funds including the Ministry of Finance. Due to staff shortages and the inexperience of audit staff within the SAI, only limited reviews of work performed is done. The senior people only review the draft report made by the auditors to ensure that it meets the requirements of relevant auditing standards. Most of the reports examined show no evidence that findings made during the audit having were discussed with responsible officials of the audited entities.

A review of selected working papers of audits conducted shows that pre-audit meetings were held at which the audit objective was discussed with management. The audit team explains the criteria against which the actual performance is measured which eventually forms the basis of the conclusion.

Required:

Write a report to the International Organization for Supreme Audit Institution (INTOSAI) describing the extent of compliance with the general requirements for performance auditing by the SAI of Madagascar. (8 marks)

(b) The Lukanga City Council budgeted for the construction of communal water borne toilets in one (1) of the large suburbs of the city. This is part of a five (5) year project to build similar toilets in all the suburbs in the city.

The toilet construction project is funded by the city council and supported by the United States Government which contributed a total amount of $1.5 million. The first phase of the project was planned to be completed within a year of commencement of the project. The budget and the available funds provide for the construction of ten (10) fully furnished waterborne public toilets meeting the agreed standards. One (1) of the conditions of the funding by the American Government is that the project should undergo annual performance audits.

The construction of the toilets will be subcontracted and the award of the contract will be by public tender. The contractor will be expected to pay for materials meeting acceptable quality standards. The tender was awarded in February 2023 and by the end of the year, eight (8) toilets had been constructed.

An inspection of the toilets revealed that the work done was substandard largely because of poor quality of materials used and also poor workmanship. Investigations on the award of the contract revealed that there were conflicts of interest in the award of contracts with some tender committee members having interests in the companies that submitted bids. Furthermore, an evaluation, by an expert, of the eight (8) toilets constructed showed that they should have been constructed at a cost 15% lower than the actual costs spent suggesting some wastage in the use of resources.

You work for the Office of the Auditor General (OAG) under the Provincial Appropriations Audit department which is responsible for the audit of local authorities. You have been assigned to undertake a performance audit of the construction of waterborne toilets under the Lukanga City Council.

Required:

(i) Describe the five (5) elements of the toilet construction project as part of the planned performance audit. (5 marks)

(ii) Describe the value for money principles in the performance audit of the toilets construction project by the Lukanga City Council. (7 marks)

[Total: 20 Marks]

QUESTION THREE

You are a Principal Auditor in the Office of the Auditor General and you have come across the following information in the Ministry of Foreign Affairs;

In March 2021, the Ministry of Foreign Affairs found itself entangled in a logistical nightmare after engaging Dispatch Logistics to transport personal effects for two former diplomats from Addis Ababa to Lusaka. The contract, with a sum of US$25,970, had an agreed-upon timeline of forty-five (45) days.

A subsequent audit of the 8 Ministerial Procurement Committee meeting held on 22 February 2023, uncovered an alarming revelation. Although Dispatch Logistics was paid in full for their services, they failed to deliver the personal effects to Lusaka. Instead, the cargo was strangely diverted to the Port of Durban in South Africa and left abandoned. This deviation from the contract terms resulted in the cargo languishing at the port for an alarming period exceeding 200 days.

Surprisingly, despite the Ministry having paid the full contract amount to Dispatch Logistics, no effort was made to recover the funds from the transporter, and no loss report was processed to account for the financial loss.

In response to the predicament, on 15 February 2022, the Ministerial Procurement Committee approved a measure to rectify the situation. Sithole Limited was granted a contract, costing US$15,030, to facilitate the clearance with the South African Port Authorities and the transportation of the goods to Zambia.

Subsequent payments were made to Sithole Limited on 22 March 2022 and 9 May 2022, amounting to US$11,800 (K213,509) and US$3,230 (K58,444), respectively, totaling US$15,030 (K271,952.82).

Despite these efforts to save the situation, as of 31 March 2023, the Ministry had not successfully recovered the funds initially paid to Dispatch Logistics. Additionally, no loss report had been processed, allowing the financial loss to remain unaccounted for within public funds.

Required:

(a) Describe the objectives of undertaking an audit in the Ministry of Foreign Affairs. (4 marks)

(b) Describe the types of audit(s) you would conduct in the Ministry of Foreign Affairs. (6 marks)

(c) Identify the main issues you are likely to bring to the attention of Management in the Ministry of Foreign Affairs. (5 marks)

(d) Recommend the actions to be taken on the issues raised in (c) above. (5 marks)

[Total: 20 Marks]

<u>QUESTION FOUR</u>

In response to the increasing demand for water resources and the need for sustainable development, the Ministry of Water Development and Sanitation of the Republic of Zambia embarks on a ground breaking Integrated Water Resource Management Project. The project aims to harness, develop, and manage both surface and groundwater resources for the benefit of the entire nation.

Initiation and Planning

The Department of Water Resources Development (DWRD), as the key implementing agency, starts the project by forming a multidisciplinary team comprising experts from the Surface Water, Groundwater, and International Waters sections. The team collaboratively designs a comprehensive strategy that aligns with the national water policy and the Ministry's vision of being a smart and value-centered entity.

1. Project Objectives

(i) To increase water resources availability through the construction, rehabilitation, and maintenance of water infrastructure.
(ii) To foster international and regional cooperation on transboundary waters.
(iii) To provide equitable access to water resources for sustainable national socio-economic development.

2. Implementation

(i) Groundwater Section:
- Undertakes groundwater exploration and mapping.
- Develops wellfields for multipurpose uses.
- Drills boreholes to increase groundwater availability.
- Conducts aquifer mapping to produce hydrogeology maps.

(ii) Surface water Section:
- Facilitates and undertakes the construction, rehabilitation, and maintenance of hydraulic infrastructure such as dams, weirs, bulk water transfer schemes, and rainwater harvesters.
- Conducts dam surveys, inventory, design, construction, rehabilitation, and maintenance.

3. Monitoring and Evaluation

The project incorporates a robust monitoring and evaluation framework to ensure the effective implementation of the initiatives. Regular assessments are conducted to measure progress against set objectives, and feedback mechanisms are established to adapt the strategies to the dynamic environment.

4. Capacity Building and Knowledge Sharing

The Ministry prioritizes capacity building within the department and engages in continuous learning and research. Workshops, training sessions, and knowledge-sharing forums are organized to keep the team dynamic and innovative in its approach.

5. Stakeholder Engagement

The DWRD actively involves stakeholders, including local communities, NGOs, and private sector partners. The collaboration ensures a harmonized approach to program execution and fosters a sense of ownership among the beneficiaries.

6. Results and Impact

The Integrated Water Resource Management Project leads to increased water availability, improved water infrastructure, and enhanced international cooperation. The nation experiences sustainable socio-economic development, with communities having equitable access to clean water for various purposes.

Project Financing

The Department of Water Resources and Development (DWRD) has devised a comprehensive plan to secure funding for its water resource management and development endeavors. To kick start the project, the department intends to allocate a dedicated portion of the national budget to cover essential activities like research, planning, and capacity building. Additionally, the DWRD aims to leverage international grants and aid from organizations, bilateral partners, and multilateral development banks to fund infrastructure development and acquire necessary technologies. Exploring Public-Private Partnerships (PPPs) is another avenue the department plans to pursue, potentially collaborating with private sector entities for infrastructure construction or technology adoption. Moreover, adjusting water user fees and tariffs is on the agenda to generate project revenue, tailored to the specific legal framework and context of water resource management. By adopting these diverse funding strategies, the DWRD aims to ensure sustainable financing for its water resource management and development initiatives.

Conclusion

By aligning with the Ministry's vision, the project not only achieves its immediate goals but also sets a precedent for smart, value-centered water resource management in Zambia. The Ministry becomes a beacon of innovation, integrity, and professionalism in the pursuit of sustainable water development.

As a Principal Auditor in charge of undertaking annual audits at the Ministry of Water Development and Sanitation, respond to the following queries from your team members:

Required:

(a) Explain the fundamental ethical principles of financial auditing. (6 marks)

(b) Describe the Key steps in the Framework for Auditing Financial Statements in the Public Sector. (5 marks)

(c) Describe the scope/specific auditable areas when conducting a Financial audit for Ministry of Water Development and Sanitation. (4 marks)

(d) Describe the process of audit risk assessment when conducting a financial audit. (5 marks)

[Total: 20 Marks]

<u>QUESTION FIVE</u>

You are assigned as Audit Supervisor to assist in conducting a special Compliance Audit with a team of Internal Auditors at ZAQA. Your supervisor has urged you to use ISSAIs in the conduct of this particular Audit.

ZAQA, the Zambia Qualifications Authority, is in the process of conducting a compliance audit to ensure the adherence of educational institutions to the standards set forth in the Zambia

Qualifications Framework. The audit focuses on a specific university, ABC University, which has applied for the registration and accreditation of its qualifications.

ABC University, a reputable institution, is seeking recognition as an appropriate institution through ZAQA's Qualifications Management Information System (QMIS). The university has submitted comprehensive information about its qualifications, including Bachelor's and Master's degree programs, for review and assessment.

The compliance audit encompasses various elements and principles outlined in the ZAQA framework, emphasizing the legal mandate, governance structure, quality enhancement mechanisms, administration and support, and adherence to established standards. The principles of the audit include independence, objectivity, systematic approach, evidence-based assessment, and continuous monitoring.

During the audit, ZAQA assesses ABC University's legal mandate to operate in the education sector, examines its governance structure for effective leadership, evaluates the quality enhancement mechanisms in place, and scrutinizes administrative processes and support services.

As part of the compliance audit, the audit team is to employ a systematic approach, ensuring a thorough examination of qualification details, delivery modes, qualifications of trainers and assessors, duration, entry requirements, aims and objectives, coherence, assessment modalities, and the statement of strategic purpose.

Upon completion of the compliance audit of ABC University the outcomes are to be reported to ZAQA. Successful qualifications receive Certificates of Accreditation and are duly registered on the Zambia Qualifications Framework. However, any qualifications that fail to meet the standards are not recognized, emphasizing the importance of compliance with the established criteria.

Required:

(a) Describe two (2) other types of audit that may be conducted together with a Compliance audit. (5 marks)

(b) Explain the significance of compliance auditing in the context of financial statements for Zambia Qualifications Authority. (8 marks)

(c) List and describe at least five (5) elements that are essential in the framework for compliance auditing at ZAQA. (5 marks)

(d) Describe any two (2) parties to Compliance auditing. (2 marks)

[Total: 20 Marks]

END OF PAPER

CA 3.7: PUBLIC SECTOR AUDITS AND ASSURANCE SUGGESTED SOLUTIONS

SOLUTION ONE

(a) Planning for an audit of SEDA

Before auditing SEDA (State Economic Development Agency) in Zambia, there are several planning considerations that an auditor should consider. Here are some key points:

- Understanding of Regulatory Environment: The auditor needs to have a thorough understanding of the regulatory framework governing government-owned entities in Zambia. This includes relevant laws, regulations, and standards that apply to SEDA's operations, financial reporting, and governance.
- Knowledge of Industry and Sector: Given SEDA's focus on economic development and industrialization across various sectors such as mining, agriculture, manufacturing, energy, infrastructure, and tourism, the auditor should possess knowledge of these industries and their specific challenges, risks, and regulatory requirements.
- Risk Assessment: Conduct a comprehensive risk assessment to identify and prioritize risks associated with SEDA's operations, including financial, operational, compliance, and strategic risks. This assessment should consider the entity's investment activities, funding mechanisms, partnerships, and stakeholder engagements.
- Understanding of SEDA's Objectives and Activities: Gain a clear understanding of SEDA's objectives, mandate, and activities as outlined in its charter or governing documents. This includes understanding its role in investment facilitation, funding, industrial growth, employment generation, stakeholder engagement, and environmental stewardship.
- Evaluation of Internal Controls: Assess the effectiveness of SEDA's internal control environment, including governance structures, policies, and procedures related to financial management, investment decision-making, project monitoring, and compliance with regulatory requirements.
- Evaluation of Financial Performance: Analyze SEDA's financial statements and performance indicators to assess its financial health, liquidity, solvency, profitability, and efficiency. This includes evaluating the reliability of financial reporting, adequacy of reserves, and transparency in disclosures.

- Assessment of Governance and Oversight: Evaluate the governance structure of SEDA, including the roles and responsibilities of its board of directors, management team, and oversight mechanisms. Assess the independence and competence of the board, effectiveness of board committees, and adherence to corporate governance best practices.
- Consideration of Stakeholder Engagement: Assess SEDA's engagement with key stakeholders, including government entities, private sector partners, investors, and civil society organizations. Evaluate the effectiveness of stakeholder communication, consultation processes, and mechanisms for addressing stakeholder concerns.
- Review of Environmental and Social Impact: Given SEDA's focus on sustainable development and environmental stewardship, the auditor should review the entity's initiatives and practices related to environmental and social impact assessment, management of environmental risks, and compliance with relevant regulations and standards.
- Consideration of Ethical and Integrity Issues: Assess SEDA's commitment to ethical conduct, integrity, and transparency in its operations and interactions with stakeholders. This includes evaluating the entity's policies and practices related to fraud prevention, conflict of interest management, and adherence to ethical standards.

By carefully considering these planning considerations, the auditor can effectively assess SEDA's performance, compliance, and governance practices, and provide valuable insights and recommendations for improvement.

(b) To undertake a performance audit of SEDA focusing on effectiveness, we can utilize a framework aligned with the three Es: Economy, Efficiency, and Effectiveness. Here's how we can approach each aspect within the context of SEDA's operations:

1. **Economy**:
    - Evaluate the cost-effectiveness of SEDA's operations in terms of resource utilization. This involves assessing whether the agency is utilizing its financial, human, and other resources efficiently to achieve its objectives.
    - Analyze the budget allocation and expenditure of SEDA's programs and initiatives to ensure that resources are allocated optimally and in alignment with the organization's goals.
    - Identify any areas of wastage or inefficiency in resource utilization and recommend measures for improvement.
2. **Efficiency**:
    - Assess the productivity and performance of SEDA's processes and operations. This includes evaluating the timeliness and effectiveness of service delivery, the responsiveness to stakeholders, and the overall efficiency of internal workflows.
    - Analyze the effectiveness of SEDA's investment facilitation and funding mechanisms in attracting investments and promoting economic growth.

- Evaluate the effectiveness of SEDA's collaboration with partners, both local and international, in leveraging resources and expertise to support industrialization and economic development.
- Identify any bottlenecks or inefficiencies in SEDA's operations and recommend strategies for streamlining processes and enhancing efficiency.

3. **Effectiveness (Special Focus)**:
    - Focus on assessing the extent to which SEDA is achieving its objectives and fulfilling its mandate of fostering economic growth and industrialization in Zambia.
    - Evaluate the impact of SEDA's initiatives on key performance indicators such as investment inflows, job creation, industrial growth, and economic diversification.
    - Assess the alignment of SEDA's activities with national development priorities and the effectiveness of its stakeholder engagement strategies in promoting transparency and accountability.
    - Analyze the sustainability and environmental impact of SEDA's projects and initiatives, ensuring that they adhere to eco-friendly practices and comply with relevant regulations.
    - Identify any gaps or shortcomings in SEDA's effectiveness and recommend measures for improvement, including policy changes, operational adjustments, or capacity-building initiatives.

By employing this framework, auditors can comprehensively evaluate SEDA's performance across the three Es, with a special focus on effectiveness in driving economic growth and industrialization in Zambia. This approach enables a holistic assessment of SEDA's operations and provides valuable insights for enhancing its impact and achieving its objectives effectively.

(c) PowerCorp

Based on the provided information about PowerCorp, a Zambian government-owned utility, the audit would likely focus on several key areas to ensure operational efficiency, regulatory compliance, and effective risk management. Here's an outline of the type of audit that could be conducted:

1. **Compliance Audit**:
    - Ensure that PowerCorp complies with all relevant regulatory requirements and standards governing the electricity sector in Zambia and the broader Sub-Saharan region.
    - Review documentation and procedures to confirm adherence to environmental regulations, safety standards, and licensing agreements.
    - Assess the company's compliance with any international agreements or protocols related to electricity trading and collaboration within the Southern African Power Pool.

2. **Financial Audit**:

    - Review financial records and budgets to ensure transparency, accountability, and proper allocation of resources in PowerCorp's operations and expansion plans.
    - Assess revenue streams, billing practices, and collection processes to ensure financial sustainability and equity in service provision.

3. **Performance Audit**:

    - Evaluate the cost-effectiveness of power generation, transmission, and distribution activities, including investment decisions related to renewable energy projects.
    - Measure the performance of PowerCorp's operations against established benchmarks and key performance indicators (KPIs), such as availability, reliability, and customer satisfaction.
    - Identify areas for improvement and optimization in the delivery of electricity and energy solutions, including opportunities to enhance service quality and reduce operational costs.
    - Provide recommendations for enhancing organizational effectiveness, technological innovation, and stakeholder engagement to support PowerCorp's mission and objectives.

Overall, the audit would aim to provide valuable insights and recommendations to help PowerCorp achieve its goals of delivering dependable and high-quality electricity services while ensuring efficiency, compliance, and resilience across its operations.

(d) Impact of Big Data

1. Big data analytics allows PowerCorp to gather and analyze vast amounts of data from its infrastructure, including power generation, transmission, and distribution equipment. By utilizing predictive analytics algorithms, PowerCorp can anticipate potential equipment failures before they occur, enabling proactive maintenance actions. This approach minimizes downtime, reduces repair costs, and improves overall system reliability.
2. Big data analytics enables PowerCorp to optimize its grid operations by analyzing real-time data on power demand, supply, and transmission conditions. By processing this information, PowerCorp can make informed decisions to balance supply and demand, manage congestion, and enhance grid stability. Optimization algorithms can help identify the most efficient routes for power transmission, reducing energy losses and improving overall grid performance.
3. Big data analytics allows PowerCorp to accurately forecast electricity demand patterns based on historical data, weather conditions, economic indicators, and other relevant factors. This forecasting capability helps PowerCorp optimize its generation and transmission resources, ensuring adequate supply to meet fluctuating demand while minimizing excess capacity and associated costs.
4. Big data analytics enables PowerCorp to gain insights into customer behavior, preferences, and usage patterns. By analyzing customer data, PowerCorp can personalize its services,

offer targeted energy efficiency programs, and develop innovative pricing plans to meet the diverse needs of its customers. This approach enhances customer satisfaction, fosters loyalty, and promotes energy conservation.

5. Big data analytics plays a crucial role in integrating renewable energy sources, such as hydroelectric power, into PowerCorp's grid. By analyzing data on weather conditions, water levels, and renewable energy output, PowerCorp can optimize the utilization of renewable resources, manage their variability, and ensure seamless integration with conventional power generation sources. This helps PowerCorp achieve its goal of expanding its renewable energy capacity while maintaining grid stability and reliability.

Overall, big data analytics empowers PowerCorp to make data-driven decisions, optimize its operations, enhance grid reliability, and deliver high-quality services to its customers in Zambia and the broader Sub-Saharan region.

Big Data 2

Big data offers immense potential for organizations in terms of extracting valuable insights, enhancing decision-making processes, and gaining competitive advantages. However, it also presents several challenges that organizations need to address to effectively harness its benefits. Some of these challenges include:

1. **Volume**: The sheer volume of data generated can be overwhelming for organizations to manage. Traditional data management systems may struggle to handle the massive amounts of data generated daily, leading to issues with storage, processing, and analysis.

2. **Velocity**: Data is generated at an unprecedented speed, requiring organizations to process and analyze it in real-time or near real-time to extract actionable insights. Handling data streams from various sources at high velocity poses significant challenges for organizations.

3. **Variety**: Big data comes in diverse formats, including structured, semi-structured, and unstructured data from sources such as social media, sensors, logs, and multimedia. Integrating and analyzing these disparate data types can be complex and requires advanced data integration and analytics capabilities.

4. **Veracity**: Big data may suffer from inaccuracies, inconsistencies, and biases, leading to challenges in ensuring data quality and reliability. Organizations need robust data quality management processes to address issues related to data veracity and maintain trust in the insights derived from big data.

5. **Value**: Extracting meaningful insights from big data can be challenging, especially if organizations lack the necessary analytical skills, tools, and expertise. Without a clear understanding of how to derive value from big data, organizations risk investing resources in collecting and storing data without gaining actionable insights.

6. **Security**: Big data often contains sensitive information, making data security and privacy paramount concerns for organizations. Safeguarding data against unauthorized access, breaches, and cyber threats requires robust security measures, encryption techniques, and access controls.

7. **Scalability**: As data volumes continue to grow exponentially, organizations must ensure that their infrastructure and systems can scale efficiently to accommodate increasing data storage, processing, and analysis requirements. Scalability challenges may arise with legacy systems that are unable to keep pace with the demands of big data.
8. **Skills and Talent**: There is a shortage of skilled professionals with expertise in big data technologies, data analytics, data science, and related fields. Recruiting and retaining talent with the necessary skills to work with big data pose significant challenges for organizations seeking to leverage its potential.
9. **Regulatory Compliance**: Organizations must comply with various data protection regulations and industry standards governing the collection, storage, processing, and sharing of data. Achieving compliance with regulations such as GDPR, HIPAA, and CCPA adds complexity to big data initiatives and requires careful planning and implementation.

Cultural Change: Embracing a data-driven culture and fostering collaboration across departments can be challenging for organizations accustomed to traditional decision-making processes. Cultural resistance to change and lack of buy-in from stakeholders may hinder the successful adoption and implementation of big data initiatives

SOLUTION TWO

(a) Report to INTOSAI on compliance with general principles for performance auditing:

To: The International Organization for Supreme Audit Institution.

Subject: Report on adherence with genera requirement for performance auditing by the SAI of Madagascar.

The following are the findings regarding compliance with general principles of performance auditing by the Supreme Audit Institution of Madagascar:

1. The Supreme Audit Institution of Madagascar is a department under the Ministry of Finance which is also subject to audits by the SAI. This is contrary to the general principles of performance auditing which state that the SAI should be independent.
2. There are only limited reviews of work performed contrary to the general requirements of performance auditing that work done should be closely supervised and reviews are evidence of this. The SAI is lacking in this aspect.
3. The general requirement for performance auditing requires a two-way communication between the public sector auditors and the audited entity. By not discussing the findings of the audit with the audited entities, the SAI of Madagascar is not complying with the general requirements of performance auditing.
4. The determination of the performance audit criteria and discussing it with the audited entities in pre-audit meeting is in compliance with the general principles of performance auditing.

(b) (i) Elements of toilet construction performance audit:

Objective – Of the toilet construction project is to construct ten water borne toilets in the first phase within the budget constraint.

Inputs – This related to the financial resources contributed by the Lukanga City Council and the contribution by the US government which funds should be used for the intended purpose.

Processes – Relating to the construction of the water borne toilets by the contractor awarded the contract.

Output – This is the result of the process in this case the outcome in terms of the number of toilets constructed at the end of the first year of the project. In the case at hand the output are the eight toilets constructed at the end of the first year.

Outcome – This is the desired outcome of the project which in this case is the construction of ten water borne toilets.

(ii) Value for money principles – toilet construction project:

Economy:
This principle involves establishing if the financial resources in the water borne toilets were put to good use and the best prices would have been spent.
In the current project this will include:

- Establishing whether the award of the contract was to the best contractor for the best price without compromising on the quality of the work.
- Confirming that the best prices were spent by the contractors on the procumbent of materials.

It would appear in this case that there was wastage in the use of financial resources in that there was an overrun on the budget and yet experts are of the view that the toilets could have been constructed within the budgeted amount.

Efficiency:
This principle measures the output from the process against the input and considers whether the same output could have been obtained using lesser resources. Going by the report of the experts the 8 toilets should have been constructed using lesser resources suggesting that there was a wastage of resources in the project.

Effectiveness:
This principle aims at establishing whether the intended objectives for the project were met. In this case the objective was to construct ten (10) water borne toilets in the first phase and this has not been met.

SOLUTION THREE

(a)Objective of the Audit

The objective of undertaking an audit in this scenario would be to assess the efficiency, effectiveness, and compliance of the Ministry of Foreign Affairs in managing procurement and logistics related to the transportation of personal effects for diplomats.

The audit aims to determine if the Ministry followed proper procedures, exercised due diligence, and ensured accountability in handling the contract with Dispatch Logistics and the subsequent actions taken to rectify the situation.

(b) Several types of audits may be conducted in the Ministry of Foreign Affairs:

- Financial Audit: To examine the financial transactions related to the contract with Dispatch Logistics, payments made, and subsequent transactions with Sithole Limited. This will help determine if there are any financial irregularities or discrepancies.
- Compliance Audit: To assess whether the Ministry adhered to its own procurement policies and regulations. This includes examining whether proper procurement procedures were followed, if there were deviations, and whether the actions taken followed established rules and regulations.
- Performance Audit: To evaluate the effectiveness and efficiency of the Ministry's actions in response to the logistical issues. This would involve assessing the decision-making process, the appropriateness of the measures taken, and the overall outcome in terms of recovering funds and resolving the situation.

(c) Based on the information provided, the main issues likely to appear in the Audit Report for Management attention and action include:

- Failure of Logistics to fulfill the contract: Highlighting the deviation from the agreed-upon terms, the inexplicable diversion of cargo to Durban, and the prolonged delay in delivery.

- Lack of efforts to recover funds from Dispatch Logistics: Identifying the absence of actions taken to retrieve the funds paid to the initial transporter despite non-compliance with the contract.
- Absence of a loss report: Noting the failure to process a loss report, leading to a lack of accountability for the financial loss within public funds.
- Subsequent contract with Sithole Limited: Assessing the necessity and appropriateness of engaging another logistics provider to rectify the situation and the transparency in awarding this contract.
- Failure to recover funds from Sithole Limited: Pointing out the Ministry's inability to recover the initial payment despite engaging a new contractor.

(d) Based on the issues identified, the following recommendations can be made:

- Initiate legal action: Pursue legal avenues to recover the funds paid to Dispatched International Logistics (Ethiopia) for services not rendered as per the contract terms.
- Conduct a thorough investigation: Investigate the circumstances surrounding the diversion of cargo to Mozambique and hold responsible parties accountable.
- Process a loss report: Immediately process a loss report to account for the financial loss within public funds and take appropriate measures to prevent such incidents in the future.
- Review and strengthen procurement procedures: Assess and enhance the Ministry's procurement policies and procedures to ensure compliance with regulations and prevent similar issues in future contracts.
- Enhance contract management: Improve oversight and monitoring of contracts to ensure that contractors fulfill their obligations, and take prompt actions in case of non-compliance.
- Enhance transparency and reporting: Improve transparency in the awarding of contracts, and ensure that comprehensive reports are generated and submitted to management, detailing the status and outcomes of contracted services.

SOLUTION FOUR

(a)The fundamental ethical principles of financial auditing serve as the guiding framework to ensure the credibility, accuracy, and reliability of financial information. The purpose and authority of these principles include:

1. Integrity:
   - Purpose: To ensure that financial information is free from bias, misrepresentation, or fraud.
   - Authority: Upheld by auditors who must act with honesty, objectivity, and professional skepticism.
2. Objectivity:
   - Purpose: To maintain impartiality and independence in the auditing process.
   - Authority: Requires auditors to avoid conflicts of interest and remain free from undue influences.

3. Professional Competence and Due Care:
   - Purpose: To guarantee that auditors possess the necessary skills and knowledge for the audit.
   - Authority: Mandates auditors to conduct thorough examinations with diligence and competence.
4. Confidentiality:
   - Purpose: Safeguarding information from unauthorized disclosure.
   - Authority: Auditors are bound by confidentiality agreements and must protect client information.
5. Professional Behavior:
   - Purpose: Promoting ethical conduct and professional conduct.
   - Authority: Requires auditors to comply with relevant laws, regulations, and ethical standards.
6. Documentation:
   - Purpose: To maintain a comprehensive record of the audit process.
   - Authority: Auditors must document their work to provide evidence of compliance with auditing standards.

(b) Elements of a financial audit in the Public Sector

1. Planning:
    - Assess the risks associated with the Ministry's financial statements.
    - Understand the Integrated Water Resource Management Project's objectives and activities.
2. Materiality and Audit Risk:
    - Determine the materiality thresholds for financial statement components.
    - Evaluate audit risks related to the financial statements.
3. Internal Control Evaluation:
    - Assess the effectiveness of internal controls related to financial reporting.
    - Identify and test controls relevant to the Ministry's financial activities.
4. Audit Procedures:
    - Perform substantive audit procedures to obtain sufficient audit evidence.
    - Test transactions, balances, and disclosures associated with the project.
5. Audit Reporting:
    - Formulate an audit opinion based on the evaluation of financial statements.
    - Disclose any material misstatements and provide recommendations for improvement.

(c) the scope/specific Auditable areas when conducting a Financial review for Ministry of Water Development and Sanitation

1. Financial Statement Examination:
    - Review of the Ministry's financial statements, including balance sheets, income statements, and cash flow statements.
2. Expenditure Verification:
    - Verify the accuracy of expenditures related to the Integrated Water Resource Management Project.
3. Compliance with Policies and Regulations:
    - Ensure adherence to financial policies, regulations, and international accounting standards.
4. Revenue and Funding Sources:
    - Validate the sources of funding for the project, ensuring transparency and legality.

(d) Process of Audit risk assessment when conducting a financial audit

- **Identification**
  Identify and assess the risks associated with the project, considering both financial and non-financial aspects. Specific risks may include budgetary constraints, technical challenges in infrastructure development, geopolitical issues affecting transboundary cooperation, and potential environmental impacts.
- **Assessment of Risks**
  Evaluate whether the identified risks are pervasive to the financial statements and may potentially affect many transactions
- **Materiality Determination**
  Establish materiality thresholds to determine the significance of misstatements or omissions in the financial statements.
- Relate the risks to what can go wrong at the assertion level
- Consider whether the risks are of a magnitude that could result in a material misstatement

- Consider the likelihood of the risks causing a material misstatement

In conclusion, the financial audit of the Ministry of Water Development and Sanitation ensures transparency, accountability, and compliance with financial standards, ultimately contributing to the success of the Integrated Water Resource Management Project.

SOLUTION FIVE

(a) Types of audit that may be conducted alongside Compliance audits

(i) Financial Audit

The primary goal of a financial audit is to assess the accuracy, completeness, and reliability of an organization's financial statements. This includes examining financial records, transactions, and controls to ensure compliance with accounting standards and regulations.

Financial audits focus on the financial reporting processes, internal controls, and financial management systems. This type of audit provides assurance to stakeholders, such as investors, creditors, and regulatory bodies, about the integrity of the financial information presented by the organization.

Relevance: While a compliance audit ensures adherence to legal and regulatory requirements, a financial audit complements this by verifying the financial accuracy and transparency of the organization's operations.

(ii) Performance Audit

A performance audit aims to evaluate the efficiency and effectiveness of an organization's internal processes, procedures, and systems. It goes beyond compliance and financial aspects to assess how well an organization is achieving its operational objectives.

Performance audits typically cover areas such as resource utilization, risk management, performance measurement, and overall process effectiveness. The focus is on identifying areas for improvement and enhancing operational efficiency.

While compliance audits ensure adherence to external regulations, operational audits provide insights into the internal workings of the organization, helping to streamline processes, optimize resource utilization, and enhance overall performance.

Conducting financial and operational audits in conjunction with a compliance audit allows for a more holistic evaluation of an organization. It provides insights into not only legal and regulatory compliance but also the financial health and operational effectiveness of the entity. This comprehensive approach helps organizations identify strengths, weaknesses, and areas for improvement across various dimensions of their operations.

(b) Explain the significance of compliance auditing in the context of Zambia Qualifications Authority.

The significance of compliance auditing in the context of financial statements for the Zambia Qualifications Authority (ZAQA) in the given scenario lies in ensuring the integrity, transparency, and reliability of financial information submitted by ABC University as part of its application for registration and accreditation. Here are key points illustrating the significance:

- Financial Accountability and Transparency

Compliance auditing ensures that ABC University provides accurate and transparent financial information. This is critical for maintaining financial accountability, as stakeholders; including students, faculty, and the public, relies on financial statements to assess the university's financial health and sustainability.

- Resource Allocation and Utilization

By scrutinizing the financial statements during the compliance audit, ZAQA can assess how ABC University allocates and utilizes its resources. This is crucial for determining whether the institution is financially capable of delivering quality education and maintaining the standards outlined in the Zambia Qualifications Framework.

- Verification of Financial Controls

Compliance auditing includes an evaluation of internal controls related to financial processes. This ensures that ABC University has robust financial controls in place to prevent fraud, mismanagement, or any irregularities that could compromise the quality and credibility of the educational programs.

- Alignment with Regulatory Requirements

Financial statements play a crucial role in demonstrating that ABC University complies with financial regulations and reporting standards. Compliance auditing helps ZAQA verify whether the university adheres to the financial requirements set forth by regulatory bodies, contributing to the overall compliance with the Zambia Qualifications Framework.

- Financial Viability and Sustainability

The compliance audit assesses the financial viability and sustainability of ABC University. ZAQA needs assurance that the institution's financial position is stable enough to support ongoing operations, maintain educational standards, and ensure the long-term recognition of its qualifications within the Zambia Qualifications Framework.

- Enhanced Credibility and Reputation

A positive outcome in the financial aspect of the compliance audit enhances ABC University's credibility. This, in turn, contributes to the institution's reputation and standing within the educational community, attracting students and building trust among stakeholders.

By integrating financial auditing within the compliance audit process, ZAQA ensures a comprehensive assessment of ABC University's overall compliance with the Zambia

Qualifications Framework, covering both operational and financial aspects crucial for the effective delivery of quality education. This approach reinforces the authority's commitment to upholding standards and maintaining the credibility of accredited institutions.

(c) List and describe at least five elements that are essential in the framework for compliance auditing at ZAQA. (5 marks)

- Legal Mandate: ZAQA evaluates the legal authority of educational institutions to operate in the education sector.
- Governance Structure: The effectiveness of leadership and oversight within institutions is examined to ensure sound governance.
- Quality Enhancement Mechanisms: ZAQA assesses the mechanisms in place to enhance the quality of education and training provided.
- Administration and Support: Efficiency of administrative processes and support services is scrutinized to ensure effective operations.
- Adherence to Standards: Organizations are evaluated based on their conformity to established standards, covering various aspects of qualification details, delivery modes, trainer qualifications.

(d) In the scenario described, there are two main parties involved in the compliance audit, ZAQA acts as the regulatory body overseeing compliance, while ABC University is the institution being audited for adherence to the established standards. The collaboration between these two parties is essential for the successful completion of the compliance audit.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA 3.8: PUBLIC SECTOR FINANCIAL MANAGEMENT

FRIDAY 13 DECEMBER 2024

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

INSTRUCTIONS TO CANDIDATES

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

2. This paper is divided into TWO (2) sections:
   Section A: One (1) compulsory scenario question.
   Section B: Four (4) Optional scenario Questions. Attempt any three (3) questions.

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

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

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

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

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

8. Present legible and tidy work.

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

10. Formulae, Present Value and Annuity tables are attached at the end of this paper.

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

SECTION A

This question is COMPULSORY and must be attempted.

QUESTION ONE – (COMPULSORY)

CASE A

The power sector has been experiencing enormous challenges regionally recently in terms of power outages, financing and management. The development of new multi-million-dollar hydro power stations and power distribution systems by government appears to have had little impact on the power generation capacity and on the financial challenges the sector faces. The government has implemented several reforms in the sector including establishment of the Energy Regulation Board (ERB) to regulate and enforce standards in the energy sector.

The government has had some success in increasing generation capacity through infrastructure investments in the sector through Public Private Partnerships (PPPs). Electricity utilities have the option to use PPPs as a mechanism to leverage private sector financing and management expertise to overcome challenges in the energy sector.

Energy utilities can be split along their value chain, for instance: power generation, transmission and distribution leveraging PPPs for financing and reforming.

Required:

As a consultant to the Ministry of Finance and National Planning:

(a) Discuss three (3) PPP arrangements that can be used to achieve the objectives of Government in resolving the shortfall in electricity production in the energy sector. (10 marks)

(b) Assess the expected impact of each of your proposed arrangements in (a) above on:

(i) Public resources;

(ii) Asset management; and

(iii) Ownership of the residual assets.

(10 marks)

CASE B

A country known as Bulinda Republic provided a significant amount in its 2023 Budget estimates for the construction of football stadiums of international standards. The reason being that Bulinda Republic decided to bid to host the Senior Football African Cup tournament. Part of the requirement for the bid to be successful was that a reasonable number of stadiums should be of the required international standard. What motivated the Government of Bulinda Republic, apart from the improved standards of football, were the potential enhancement of business opportunities in the tourism sector and the possibility of regulating businesses in order to provide quality and affordable goods and services to the general public. Further, the improvement of sanitation not only in towns where the football matches will be played from, but also in other cities of Bulinda Republic.

The Government of Bulinda Republic, through its Ministry of Sport, Entrepreneurship and National Service, resolved that each municipality, where the Stadiums were to be built, develop business proposals to be considered for possible funding. These business proposals were to include the building of Stadiums, Guest Houses and other capital expenditure like roads, Tanks to store fuel in order to have enough supplies during the tournaments and thereafter. The stadiums that were to be built were those that were to use both electricity and huge solar panels. It was noted that Bulinda Republic was persistently experiencing blackouts and subsequently load shedding was implemented. This load shedding, if it were to continue during the period of the tournament would negatively affect the hosting of the Senior Football team African Nations tournament. The same was to be considered when new hotels and guest houses are constructed.

The Minister of Sport, Entrepreneurship and National Service, issued a circular that these capital projects were to be implemented by use of the Public Partnership Models. The reason being that the budgeted amount in the 2023 budget and as announced was not adequate, though significant.

The different municipalities where these football matches were going to be held were requested by the Central Government to provide plans of the stadiums which were subject to be scrutinized and approved by experts drawn from the relevant ministries. Tenders were to be solicited, both locally and internationally, for the construction of these stadiums with the specifications clearly stated. A team of experts were selected from the general public whose responsibility was to conduct a technical and financial evaluation of the submitted bids in accordance with Procurement procedures regarding capital expenditures of this nature. It was noted that the five steps business case model was to be applied.

Required:

(c) State what distinguishes the delivery methods of capital expenditure in the provision of public goods and services that can benefit Bulinda Republic. (2 marks)

(d) Explain the characteristics of Conventional procurement models and state the commonalities that are found in these types of models. (18 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt any THREE (3) questions

QUESTION TWO

The Ministry of Finance and National Planning is currently preparing to hold a Town Hall meeting to explain sources of central government revenue to the people as presented in the table below:

Functional Category	K' million
Total Revenue, Grants and Financing	70,000
A. Total Domestic Revenue and Domestic Financing	54,000
1. Domestic Revenues	42,000
Income Tax	19,000
Value Added Tax	9,000
Customs and Exercise	7,000
Other Revenues	500
Non Tax	6,500
2. Domestic Revenue others	12,000
B. Total Foreign Grants and Financing	16,000
Project Grants	2,000
Programme and Project loans	14,000

Required:

Assume as the Director of Finance at the Ministry of Finance, you have been requested to prepare a presentation for a Town Hall meeting. As part of your presentation, explain the following:

(a) The difference between revenue and financing. (4 marks)

(b) Sources of financing and potential issues in relying on foreign borrowing as a significant source of revenue financing. (4 marks)

(c) Reforms government must implement in order to minimize reliance on foreign borrowing. (12 marks)

[Total: 20 Marks]

QUESTION THREE

The seventh national development plan for the period 2017 – 2021 was based on five (5) pillars namely:

(i) Enhancing resource mobilization and refocusing of public spending on core public sector mandates.
(ii) Scaling up Government social protection programmes to shield the most vulnerable in society from negative effects of the programme
(iii) Improving economic and fiscal governance by raising the levels of accountability and transparency in the allocation and use of public finances
(iv) Restoring the credibility of the budget by minimizing the unplanned expenditure and halting the accumulation of arrears; and
(v) Ensuring greater economic stability, growth and job creation through policy consistency to raise confidence for sustainable public sector investment.

Despite all these pillars articulated in the plan, the government had registered negative economic growth. The government struggled to attract Foreign Direct Investment (FDI) and continued to struggle to finance public expenditure. Recent statistics are projecting Growth of 3.1% by end of 2022.

Required:

(a) Discuss the possible reasons for the decline of economic growth in Zambia by the end of 2021. (10 marks)

(b) Explain the measures that the government could have put in place to improve the economic growth. (10 marks)

[Total: 20 Marks]

QUESTION FOUR

An effective debt management system is an essential part of any country's public finance management system. A well-established debt management policy enables members of parliament and staff and the general public to have confidence that the procedures and processes necessary to ensure sound debt management are in place and effective and if they are not, to take corrective action.

Assume you are employed at the ministry of finance debt management office. You are part of a team currently reviewing the Zambia debt management strategy framework. In particular, the team is reviewing the country's Debt Sustainability Analysis document (DSA) for 2023.
The team is considering the domestic and external debt requirements of the country. The bond market and treasury bills market including the euro bonds are among the financing sources being considered. This follows Zambia's attainment of a Lower Middle Income Country (LMC) status in 2011. This implied that Zambia's ability to borrow through the African development bank (AfDB) and the World bank has been reduced as Zambia's per capita income has improved. As a result of this attainment, Zambia's debt strategy has included accessing finance on the international bond markets for economically long term developmental projects. This led to the issuance of Eurobonds by the government on the international market.

Required:

(a) Explain the term "public debt management" and the institutional framework of Zambia's public debt management. (8 marks)

(b) Explain the purpose of the Debt strategy policy document and the Debt sustainability analysis document. (4 marks)

(c) Explain the factors that determine a country's level of borrowing. (8 marks)

[Total: 20 Marks]

QUESTION FIVE

Article 250 of the Constitution of Zambia mandates the Office of the Auditor General to audit the accounts of (i) State organs, State institutions, provincial administration and local authorities; and (ii) institutions financed from public funds of the republic. This practice has seen most Institutions producing annual financial reports which are subject to Audit Scrutiny and enhance public finance management.

Required:

Explain the following:

(a) The expenditure scope of External Audit in the Public Sector for the Government of the Republic of Zambia. (5 marks)

(b) The financial report and the external audit scrutiny process in Zambia. (5 marks)

(c) Challenges that most public sector entities face to ensure that they adhere to guidelines of preparing financial reports. (10 marks)

[Total: 20 Marks]

END OF PAPER

Formulae

Modigliani and Miller Proposition 2 (with tax)

$$k_e = k_e^i + (1 - T)(k_e^i - k_d)\frac{V_d}{V_e}$$

Two asset portfolio

$$s_p = \sqrt{w_a^2 s_a^2 + w_b^2 s_b^2 + 2w_a w_b r_{ab} s_a s_b}$$

The Capital Asset Pricing Model

$$E(r_i) = R_f + \beta_i(E(r_m) - R_f)$$

The asset beta formula

$$\beta_a = \left[\frac{V_e}{(V_e + V_d(1-T))}\beta_e\right] + \left[\frac{V_d(1-T)}{(V_e + V_d(1-T))}\beta_d\right]$$

The Growth Model

$$P_o = \frac{D_o(1+g)}{(r_e - g)}$$

Gordon's growth approximation

$$g = br_e$$

The weighted average cost of capital

$$WACC = \left[\frac{V_e}{V_e + V_d}\right]k_e + \left[\frac{V_d}{V_e + V_d}\right]k_d(1-T)$$

The Fisher formula

$$(1+i) = (1+r)(1+h)$$

Purchasing power parity and interest rate parity

$$S_1 = S_0 x \frac{(1+h_c)}{(1+h_b)} \qquad F_0 = S_0 x \frac{(1+i_c)}{(1+i_b)}$$

Modified Internal Rate of Return

$$MIRR = \left[\frac{PV_R}{PV_I}\right]^{\frac{1}{n}}\left(1 + r_e\right) - 1$$

The Black-Scholes option pricing model

$$c = P_a N(d_1) - P_e N(d_2) e^{-rt}$$

Where:

$$d_1 = \frac{\ln(P_a / P_e) + (r + 0.5s^2)t}{s\sqrt{t}}$$

$$d_2 = d_1 - s\sqrt{t}$$

The Put Call Parity relationship

$$p = c - P_a + P_e e^{-rt}$$

Present Value Table

Present value of 1 i.e. $(1 + r)^{-n}$

Where r = discount rate
n = number of periods until payment

Discount rate (r)

Periods (n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0·990	0·980	0·971	0·962	0·952	0·943	0·935	0·926	0·917	0·909	1
2	0·980	0·961	0·943	0·925	0·907	0·890	0·873	0·857	0·842	0·826	2
3	0·971	0·942	0·915	0·889	0·864	0·840	0·816	0·794	0·772	0·751	3
4	0·961	0·924	0·888	0·855	0·823	0·792	0·763	0·735	0·708	0·683	4
5	0·951	0·906	0·863	0·822	0·784	0·747	0·713	0·681	0·650	0·621	5
6	0·942	0·888	0·837	0·790	0·746	0·705	0·666	0·630	0·596	0·564	6
7	0·933	0·871	0·813	0·760	0·711	0·665	0·623	0·583	0·547	0·513	7
8	0·923	0·853	0·789	0·731	0·677	0·627	0·582	0·540	0·502	0·467	8
9	0·941	0·837	0·766	0·703	0·645	0·592	0·544	0·500	0·460	0·424	9
10	0·905	0·820	0·744	0·676	0·614	0·558	0·508	0·463	0·422	0·386	10
11	0·896	0·804	0·722	0·650	0·585	0·527	0·475	0·429	0·388	0·305	11
12	0·887	0·788	0·701	0·625	0·557	0·497	0·444	0·397	0·356	0·319	12
13	0·879	0·773	0·681	0·601	0·530	0·469	0·415	0·368	0·326	0·290	13
14	0·870	0·758	0·661	0·577	0·505	0·442	0·388	0·340	0·299	0·263	14
15	0·861	0·743	0·642	0·555	0·481	0·417	0·362	0·315	0·275	0·239	15

(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0·901	0·893	0·885	0·877	0·870	0·862	0·855	0·847	0·840	0·833	1
2	0·812	0·797	0·783	0·769	0·756	0·743	0·731	0·718	0·706	0·694	2
3	0·731	0·712	0·693	0·675	0·658	0·641	0·624	0·609	0·593	0·579	3
4	0·659	0·636	0·613	0·592	0·572	0·552	0·534	0·516	0·499	0·482	4
5	0·593	0·567	0·543	0·519	0·497	0·476	0·456	0·437	0·419	0·402	5
6	0·535	0·507	0·480	0·456	0·432	0·410	0·390	0·370	0·352	0·335	6
7	0·482	0·452	0·425	0·400	0·376	0·354	0·333	0·314	0·296	0·279	7
8	0·434	0·404	0·376	0·351	0·327	0·305	0·285	0·266	0·249	0·233	8
9	0·391	0·361	0·333	0·308	0·284	0·263	0·243	0·225	0·209	0·194	9
10	0·352	0·322	0·295	0·270	0·247	0·227	0·208	0·191	0·176	0·162	10
11	0·317	0·287	0·261	0·237	0·215	0·195	0·178	0·162	0·148	0·135	11
12	0·286	0·257	0·231	0·208	0·187	0·168	0·152	0·137	0·124	0·112	12
13	0·258	0·229	0·204	0·182	0·163	0·145	0·130	0·116	0·104	0·093	13
14	0·232	0·205	0·181	0·160	0·141	0·125	0·111	0·099	0·088	0·078	14
15	0·209	0·183	0·160	0·140	0·123	0·108	0·095	0·084	0·074	0·065	15

Annuity Table

Present value of an annuity of 1 i.e. $\frac{1 - (1 + r)^{-n}}{r}$

Where r = discount rate
n = number of periods

Discount rate (r)

Periods (n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0·990	0·980	0·971	0·962	0·952	0·943	0·935	0·926	0·917	0·909	1
2	1·970	1·942	1·913	1·886	1·859	1·833	1·808	1·783	1·759	1·736	2
3	2·941	2·884	2·829	2·775	2·723	2·673	2·624	2·577	2·531	2·487	3
4	3·902	3·808	3·717	3·630	3·546	3·465	3·387	3·312	3·240	3·170	4
5	4·853	4·713	4·580	4·452	4·329	4·212	4·100	3·993	3·890	3·791	5
6	5·795	5·601	5·417	5·242	5·076	4·917	4·767	4·623	4·486	4·355	6
7	6·728	6·472	6·230	6·002	5·786	5·582	5·389	5·206	5·033	4·868	7
8	7·652	7·325	7·020	6·733	6·463	6·210	5·971	5·747	5·535	5·335	8
9	8·566	8·162	7·786	7·435	7·108	6·802	6·515	6·247	5·995	5·759	9
10	9·471	8·983	8·530	8·111	7·722	7·360	7·024	6·710	6·418	6·145	10
11	10·37	9·787	9·253	8·760	8·306	7·887	7·499	7·139	6·805	6·495	11
12	11·26	10·58	9·954	9·385	8·863	8·384	7·943	7·536	7·161	6·814	12
13	12·13	11·35	10·63	9·986	9·394	8·853	8·358	7·904	7·487	7·103	13
14	13·00	12·11	11·30	10·56	9·899	9·295	8·745	8·244	7·786	7·367	14
15	13·87	12·85	11·94	11·12	10·38	9·712	9·108	8·559	8·061	7·606	15

(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0·901	0·893	0·885	0·877	0·870	0·862	0·855	0·847	0·840	0·833	1
2	1·713	1·690	1·668	1·647	1·626	1·605	1·585	1·566	1·547	1·528	2
3	2·444	2·402	2·361	2·322	2·283	2·246	2·210	2·174	2·140	2·106	3
4	3·102	3·037	2·974	2·914	2·855	2·798	2·743	2·690	2·639	2·589	4
5	3·696	3·605	3·517	3·433	3·352	3·274	3·199	3·127	3·058	2·991	5
6	4·231	4·111	3·998	3·889	3·784	3·685	3·589	3·498	3·410	3·326	6
7	4·712	4·564	4·423	4·288	4·160	4·039	3·922	3·812	3·706	3·605	7
8	5·146	4·968	4·799	4·639	4·487	4·344	4·207	4·078	3·954	3·837	8
9	5·537	5·328	5·132	4·946	4·772	4·607	4·451	4·303	4·163	4·031	9
10	5·889	5·650	5·426	5·216	5·019	4·833	4·659	4·494	4·339	4·192	10
11	6·207	5·938	5·687	5·453	5·234	5·029	4·836	4·656	4·486	4·327	11
12	6·492	6·194	5·918	5·660	5·421	5·197	4·988	4·793	4·611	4·439	12
13	6·750	6·424	6·122	5·842	5·583	5·342	5·118	4·910	4·715	4·533	13
14	6·982	6·628	6·302	6·002	5·724	5·468	5·229	5·008	4·802	4·611	14
15	7·191	6·811	6·462	6·142	5·847	5·575	5·324	5·092	4·876	4·675	15

Standard normal distribution table

	0·00	0·01	0·02	0·03	0·04	0·05	0·06	0·07	0·08	0·09
0·0	0·0000	0·0040	0·0080	0·0120	0·0160	0·0199	0·0239	0·0279	0·0319	0·0359
0·1	0·0398	0·0438	0·0478	0·0517	0·0557	0·0596	0·0636	0·0675	0·0714	0·0753
0·2	0·0793	0·0832	0·0871	0·0910	0·0948	0·0987	0·1026	0·1064	0·1103	0·1141
0·3	0·1179	0·1217	0·1255	0·1293	0·1331	0·1368	0·1406	0·1443	0·1480	0·1517
0·4	0·1554	0·1591	0·1628	0·1664	0·1700	0·1736	0·1772	0·1808	0·1844	0·1879
0·5	0·1915	0·1950	0·1985	0·2019	0·2054	0·2088	0·2123	0·2157	0·2190	0·2224
0·6	0·2257	0·2291	0·2324	0·2357	0·2389	0·2422	0·2454	0·2486	0·2517	0·2549
0·7	0·2580	0·2611	0·2642	0·2673	0·2704	0·2734	0·2764	0·2794	0·2823	0·2852
0·8	0·2881	0·2910	0·2939	0·2967	0·2995	0·3023	0·3051	0·3078	0·3106	0·3133
0·9	0·3159	0·3186	0·3212	0·3238	0·3264	0·3289	0·3315	0·3340	0·3365	0·3389
1·0	0·3413	0·3438	0·3461	0·3485	0·3508	0·3531	0·3554	0·3577	0·3599	0·3621
1·1	0·3643	0·3665	0·3686	0·3708	0·3729	0·3749	0·3770	0·3790	0·3810	0·3830
1·2	0·3849	0·3869	0·3888	0·3907	0·3925	0·3944	0·3962	0·3980	0·3997	0·4015
1·3	0·4032	0·4049	0·4066	0·4082	0·4099	0·4115	0·4131	0·4147	0·4162	0·4177
1·4	0·4192	0·4207	0·4222	0·4236	0·4251	0·4265	0·4279	0·4292	0·4306	0·4319
1·5	0·4332	0·4345	0·4357	0·4370	0·4382	0·4394	0·4406	0·4418	0·4429	0·4441
1·6	0·4452	0·4463	0·4474	0·4484	0·4495	0·4505	0·4515	0·4525	0·4535	0·4545
1·7	0·4554	0·4564	0·4573	0·4582	0·4591	0·4599	0·4608	0·4616	0·4625	0·4633
1·8	0·4641	0·4649	0·4656	0·4664	0·4671	0·4678	0·4686	0·4693	0·4699	0·4706
1·9	0·4713	0·4719	0·4726	0·4732	0·4738	0·4744	0·4750	0·4756	0·4761	0·4767
2·0	0·4772	0·4778	0·4783	0·4788	0·4793	0·4798	0·4803	0·4808	0·4812	0·4817
2·1	0·4821	0·4826	0·4830	0·4834	0·4838	0·4842	0·4846	0·4850	0·4854	0·4857
2·2	0·4861	0·4864	0·4868	0·4871	0·4875	0·4878	0·4881	0·4884	0·4887	0·4890
2·3	0·4893	0·4896	0·4898	0·4901	0·4904	0·4906	0·4909	0·4911	0·4913	0·4916
2·4	0·4918	0·4920	0·4922	0·4925	0·4927	0·4929	0·4931	0·4932	0·4934	0·4936
2·5	0·4938	0·4940	0·4941	0·4943	0·4945	0·4946	0·4948	0·4949	0·4951	0·4952
2·6	0·4953	0·4955	0·4956	0·4957	0·4959	0·4960	0·4961	0·4962	0·4963	0·4964
2·7	0·4965	0·4966	0·4967	0·4968	0·4969	0·4970	0·4971	0·4972	0·4973	0·4974
2·8	0·4974	0·4975	0·4976	0·4977	0·4977	0·4978	0·4979	0·4979	0·4980	0·4981
2·9	0·4981	0·4982	0·4982	0·4983	0·4984	0·4984	0·4985	0·4985	0·4986	0·4986
3·0	0·4987	0·4987	0·4987	0·4988	0·4988	0·4989	0·4989	0·4989	0·4990	0·4990

This table can be used to calculate $N(d)$, the cumulative normal distribution functions needed for the Black-Scholes model of option pricing. If $d_i > 0$, add 0·5 to the relevant number above. If $d_i < 0$, subtract the relevant number above from 0·5.

CA 3.8: PUBLIC SECTOR FINANCIAL MANAGEMENT SUGGESTED SOLUTIONS

SOLUTION ONE

CASE A – Capital Projects

There are many types of PPP arrangements available; however in this instance the power company is already in operation and the government wants to utilize PPPs to improve their operations. Acceptable PPP approaches include the following:

(a)(i) Maintain and Operate Arrangement

Under this arrangement, the governments enters into a contract with a private firm (operator) to take over the management of a public asset, operate it and maintain it from the revenues generated from its operations. The operator is not required under the contract to make any investment into the operations of the entity for their expertise. The operator is compensated through residual fees as a reward without any right over the residual asset.

(b)(i) Implication for Public Resources

Under this arrangement, government is expected to use its resources to construct or acquire the assets. The arrangement therefore involves a huge outlay from public resources. It is not appropriate where public funds for the project are inadequate.

(b)(ii) Implication for Management

The management is carried out solely by the operator and this enables government to leverage on management expertise of the private operator to enhance delivery of public service.

(b)(iii) Implication for the Residual Asset

The residual asset remains government property and ownership rights are not affected by the PPP arrangement. The residual risk is a major constrain of this arrangement.

(a)(ii) Service concession

Service concession arrangements involve contracts under which a public sector entity ("grantor") grants a private entity ("operator") the right to operate the grantor's infrastructure (e.g., an airport, toll road, bridge, hospital, power distribution). The infrastructure may already exist or may be constructed by the operator. The concession arrangement may also require significant upgrades to the infrastructure without any equity right to operate. The operator is allowed to recoup its investment over a specified contract period and return the residual asset to the grantor (government).

(b)(i) Implication for Public Resources

The government ceases to pump public monies into the power distribution company from the commencement of the agreement. Operator is required under contract to make the necessary investment into the company to upgrade its distribution capacity. This is alleviating pressure from the public funds as the private operator take over the investment.

(b)(ii) Implication for Management

Management of the power distributor is ceded to the private operator who brings its expertise on board to enhance power distribution. Government is therefore relief of the burden of managing the entity for the contract period.

(b)(iii) Implication for residual asset

The ownership of the power distributor remains government from the commencement of the contract to the end of the contract. The residual asset is therefore transferred to the government at the end of the contract. There is high residual risk in this arrangement.

(a)(iii) Divestiture/partial transfer

This involves partial transfer of part of the ownership of the power distributor to the private operator, who then becomes a shareholder of the company. In most of these cases, government gives majority control to the private operator and then maintains the minority interest of say 40-49%. However, given the strategic nature of the sector to national development, a minimum controlling interest of 51% can be maintained.

(b)(i) Implication for public monies

At the commencement, the proceeds from the sale boost the public funds but subsequent investment may be required from government as a shareholder.

(b)(ii) Implication for management

The private operator has controlling interest in the company and takes major decisions of the company. Government as a non-controlling interest has the opportunity to influence the decision of the board to protect public interest.

(b)(iii) Implication for Residual Asset

The asset becomes a joint asset of both government and the operator and in case of liquidation; the residual assets will be distributed based on the shareholdings. Residual risk is fairly shared in this arrangement.

CASE B – Capital Projects

	Question/task	Outline Solution
Q1		
(a)	Identify and explain as to what constitutes the differences between the delivery methods of capital expenditure in the provision of public goods and services that can benefit Bulinda Republic.	(a) **Differences:** i. Ownership and the administrator of the assets which are used to deliver public goods and services. ii. The Risk Bearer under the arrangement
(b)	Explain and identify the characteristics of Conventional procurement models, state the commonalities that are found in these types of models	(b). **Characterists:** i. Government contracts with the private sector entities to build an asset according to the public sector specifications ii. Government provides the finances either by taxes or borrowing. iii. The public sector assumes complete responsibility for the operation the asset once complete including maintenance and upgrading should need be. **Commonalities:** i. Financing ii. Construction risk iii. Ownership iv. Demand risk v. Availability risk vi. Maintenance

SOLUTION TWO

	Question/task	Outline Solution
Q2a	You are Director Finance in the Ministry of Finance and you have been requested to prepare presentation for the Town Hall meeting Explaining: a) The difference between revenue and financing	While both revenue and financing provide government with cash that is needed to deliver goods and services and meet other obligations, financing through borrowing from domestic and foreign financing must be repaid while revenue collected from taxes and non - tax revenue is not repaid by government.
Q2b	b) Sources of financing and potential issues in relying on foreign borrowing as a significant source of revenue financing.	Program and project financing loans include financing from multi- lateral organizations such as World Bank, European Investment Bank and African Development Bank. They also include bilateral financing from banks such as Export Import Bank of China. The requirement to pay interest and repay capital restricts future spending flexibility. Additional issues arise if borrowing is made and repayment are required in a foreign currency such as the US dollar , as depreciation of the Kwacha as has been seen in the recent years can lead to significantly higher repayments.
Q2c	c) Reforms government must implement in order to minimize reliance on foreign borrowing	• To reduce the debt, the country could raise taxes and/or cut spending. These are two of the tools of contractionary fiscal policy, and either tactic could slow economic growth. • Debt managers, fiscal policy advisors, and central bankers should share an understanding of the objectives of debt management, fiscal, and monetary policies given the interdependencies between their different policy instruments. Debt managers should convey to fiscal authorities their views on the costs and risks associated with government financing requirements and debt levels. • The allocation of responsibilities among the ministry of finance, the central bank, or a separate debt management agency, for debt management policy advice, and for undertaking primary debt issues, secondary market arrangements, depository facilities, and clearing and settlement arrangements for trade in government securities, should be publicly disclosed • The public should be provided with information on the past, current, and projected budgetary activity, including its financing, and

		the consolidated financial position of the government. • Debt management activities should be audited annually by external auditors. • The legal framework should clarify the authority to borrow and to issue new debt, invest, and undertake transactions on the government's behalf. The organizational framework for debt management should be well specified, and ensure that mandates and roles are well articulated.

SOLUTION THREE

Q3a	(a) Explain the reason for decline of economic growth in Zambia by end 2021.	• Slowdown in regional and global growth that saw reduction was mainly due to covid- 19. • Power outages as a result of limits imposed by water reserves. • Sharp depreciation of the kwacha. • Policy inconsistencies leading to loss of investor confidence. • Wider investor concerns at increasing government deficit and debt levels.
Q3b	Explain measures that government put in place that has led to positive economic growth	• Strengthening the fiscal position and restoring fiscal buffers are necessary to increase confidence in the economy, which can reduce the need for costly borrowing and build resilience against further external shocks. • Engagement of the IMF on bailout and external creditors on restructuring of debt • Trade facilitation through engagement of the private sector • Payment of outstanding domestic arrears to suppliers of goods and services in order to improve liquidity • Transparency and accountability in the contraction of debt through making information available to stakeholders on a quarterly basis.

SOLUTION FOUR

a) The IMF defines public debt management as "the process of establishing and executing a strategy for managing government's debt in order to raise required amount of funding at the lowest possible cost over the medium to long run, consistent with a prudent degree of risk"
The functions of debt management in Zambia are split between the ministry of finance and bank of Zambia. The debt department in the ministry of finance is responsible for managing public external debt, public domestic debt and government guaranteed debt. The department is also responsible for proposing the country's debt strategy and conducting debt analysis.
The ministry executes payments of all public external and domestic debt through instructions to the Bank of Zambia. In turn the bank of Zambia is responsible for managing external debt service payment. The bank of Zambia is also responsible for managing parastatal and private debt.
The ministry of finance provides broad guidelines of the domestic debt policy while the implementation and management of the policy is executed by the central bank.
The constitution of Zambia provides for parliamentary oversight of the executive in matters relating to public debt. According to cap.23, part 2 of the constitution " the national assembly shall oversee the performance of executive functions by approving public debt before it is contracted"

b) The debt strategy policy document provides guidelines on the requirements of the country to have in place the debt sustainability analysis (DSA). The DSA is an assessment of a country's ability to meet its obligations in the medium to long term. Further the DSA guides a country's borrowing process on when, for what, how much, and from whom to borrow. Zambia conducts a DSA every year using the debt sustainability framework model (DSF). The DSF is used by a number of players, namely a borrowing country, the world bank, the IMF and other lenders. The borrowing country is guided in its borrowing decisions in a way that balances development goals with preserving debt sustainability. The DSF guides the IMF to set debt limit.

c)

1) A country's borrowing policy should be consistent with its macroeconomic objectives: economic growth, containment of inflation levels, limiting budget deficit to certain levels, keeping credit and money supply under control, and minimising uncertainty among investors by building their confidence.
2) Borrowing is part of the global framework of public finance management and the budgetary process. If a given resource envelope is insufficient to meet all expenditures a government may want to borrow in order to plug the gap in a particular year or number of years.
3) Debt contracting can also be a deliberate policy of raising resources for developmental programs and projects. This would be under the ambit of the central government.

4) Debt contracting (external) can also be used in order to build up international reserves. Further it can be used to mobilise capital for the depening of the domestic capital market.

SOLUTION FIVE

Q5	**Explain**	
	i) The expenditure scope of External Audit in the Public Sector for the Government of the Republic of Zambia.	External Audit covers not only whether entities are applying financial reporting standards correctly but also that money appropriated by the legislature has been used for the correct purposes, in accordance with governance requirements and in a way that promotes value for money. This reflects the difference between public sector and private sector financial management with a requirement to use compulsory taxation for purposes of democratically agreed , the requirement for government officials to act with fairness , integrity and be accountable to citizens and service users and in the absence of competition and a profit motive, the need to achieve value for money.
	ii) The financial report and the external audit scrutiny process in Zambia	Financial reports produced by MPAS are subject to external Audit. External Audit is undertaken by Auditor General. The Auditor General is appointed by the President upon recommendation by the State Audit Commission, subject to ratification by the National Assembly. There are able to act independently and there is a high level of external audit coverage, with the use of systems audit and value for money audits. These audits include recommendations to entities improvements. A formal response to audit recommendations is provided to parliament through Treasury Minutes. In depth hearing by the Public Accounts Committee in parliament is conducted where adverse audit opinions have been received with Auditor General and Accountant General being called as witness.
	iii) Challenges that most public sector entities face to ensure that they adhere to guidelines of preparing financial reports	• Limited guidance on how to prepare financial reports using Accounting standards. • Conflicting requirements on certain standards such as for service concession agreements. In the public sector, a service concession arrangement is where a public entity (the grantor) contracts with another party (the operator) to provide a service on their behalf. The operator often makes use of some of the assets of the grantor to deliver the contracted services. Sometimes, the operator is responsible for constructing the asset. The service will usually be provided for an agreed period and at a negotiated price. For example, a public entity

		might contract with a private sector entity to operate a prison or a hospital. • Less transparency in about related part disclosure main due to most employees being political exposed persons. • Guidance whether an entity controls the other is not easy to apply. • Many public entities are required to report on their performance. Performance information covers service delivery and achievements. It is an important part of the accountability documents prepared by many entities in the public sector. Performance information needs to be combined with financial information to convey a coherent and complete picture about the public entity's performance.

END OF SOLUTIONS