CA ZAMBIA PROGRAMME EXAMINATIONS

CA CERTIFICATE IN ACCOUNTANCY

CA 1.1: FINANCIAL ACCOUNTING

MONDAY 12 JUNE 2023

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

INSTRUCTIONS TO CANDIDATES

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

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

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

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

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

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

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

8. Present legible and tidy work.

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

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

SECTION A

Attempt all ten (10) multiple choice questions

QUESTION ONE

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

1.1 Which of the following is an example of an asset?

A. Inventory
B. Payables
C. Loan
D. Accrued Expense

(2 marks)

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

A. Objectivity
B. Going Concern
C. Business Entity
D. Money Measurement

(2 marks)

1.3 DCM operates an imprest system for Petty cash. During February 2023, the following petty cash transactions took place:

		K
2 February 2023	Paid for stamps	600
3 February 2023	Paid for milk	1,250
5 February 2023	Paid for stamps	250
9 February 2023	Paid for taxi fare	750
12 February 2023	Received from employee for photocopying	400
20 February 2023	Paid for sundry expenses	375

The amount remaining in Petty cash at the end of the month was K4,675. What is the imprest amount?

A. K3,625
B. K7,500
C. K8,300
D. K2,825

(2 marks)

1.4 Individual customer accounts are kept in which ledger?

A. Nominal ledger
B. General ledger
C. Trade payables ledger
D. Trade receivables ledger

(2 marks)

1.5 An item of Inventory was purchased for K12,000. However, due to a fall in demand, its selling price will be only K9,600. In addition, further costs of K1,200 will be incurred prior to sale. What is the net realizable value?

A. K9,600
B. K8,400
C. K12,000
D. 13,200

(2 marks)

1.6 The following values relate to a non-current asset:

(i)	Carrying amount	K50,000
(ii)	Net realizable value	K36,000
(iii)	Value in use	K44,000
(iv)	Replacement cost	K100,000

What is the recoverable amount of the asset?

A. K44,000
B. K100,000
C. K50,000
D. K36,000

(2 marks)

1.7 An allowance for receivables of 2% is required. Trade receivables at the period end are K10,000 and the allowance for receivables brought forward from the previous period is K100. What movement is required this year?

A. Increase by K200
B. Decrease by K200
C. Increase by K100
D. Decrease by K100

(2 marks)

1.8 A company's bank statement shows K2,860 direct debits and K1,412 Investment Income not recorded in the Cash Book. The Bank statement does not show a customer's cheque for K3,500 entered in the Cash Book on the last day of the accounting period. If the Cash Book shows a credit balance of K2,440, what is the figure for the bank balance to be reported in the final accounts?

A. K7,388 Credit
B. K3,888 Credit
C. K3,888 Debit
D. K7,388 Debit

(2 marks)

1.9 What is a Journal used for?

A. To correct Errors
B. To correct Errors and post usual transactions.
C. To correct Errors and clear suspense account
D. To make adjustments to the double entry

(2 marks)

1.10 X, Y and Z are in partnership with a profit sharing ratio of 3: 2: 1 respectively. For the year ended 31 December 2023, the partnership profit are K90,000. What is Y's share of the profits?

A. K30,000
B. K15,000
C. K36,000
D. K45,000

(2 marks)
[Total: 20 marks]

SECTION B

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

QUESTION TWO – (COMPULSORY)

Namoonga, Mainza and Mulenga are three (3) sisters who have been in private practice in Zambia under the name, NMM Partners for a couple of years sharing profits and losses in the ratio 4:3:3 respectively. On 31 December 2022, Mainza decided to retire due to her relocation to the United Kingdom to take up a medical appointment. The remaining partners agreed to continue trading under NM partners sharing profits or losses equally. The draft statement of financial position as at December 31, 2022 was as below:

NMM Partners
Statement of financial position as at December 31, 2022

	K'000	K'000
Assets:		
Non-current assets:		
Freehold land and buildings		5,400
Plant and machinery		1,800
Office equipment		450
Motor vehicles		1,050
8,700		
Current assets:		
Inventory	1,000	
Receivables	1,250	
Bank balances	230	2,480
11,180		
Financed by:		
Capital accounts:		
Namoonga	4,200	
Mainza	3,000	
Mulenga	2,100	9,300
Current liabilities:		
Payables	1,580	
Bank overdraft	300	1,880
		11,180

You are to take note of the following additional relevant information at the time of Mainza's retirement:

(i) No interest was charged on partners' drawings at 5% on the K600,000 drawn by each partner.

(ii) The Partnership Deed provides for interest on partners' capital accounts at 6%. For purposes of calculating this interest, the following figures are applicable:

Namoonga	K2,100,000
Mainza	K1,500,000

Mulenga	K1,050,000

Partners' capital account figures in the draft statement above include additional capital introduced by each partner on 1 October 2022. It was agreed that no interest would apply on additional capital.

(iii) At her retirement, Mainza received K240,000 paid by cheque immediately.

(iv) Goodwill was valued at K3,000,000 following Mainza's retirement and was NOT to be retained in the books of NM Partners.

(v) Other assets and liabilities at Mainza's retirement were revalued as follows:

Freehold land and buildings	K6,000,000
Plant and machinery	K2,400,000
Office equipment	K350,000
Motor vehicles	K1,560,000

(vi) Discount to be received from creditors amounted to K270,000.

(vii) 20% of the receivables was irrecoverable.

(viii) 15% of inventory was obsolete.

(ix) The balance due to Mainza is to be kept in the firm as a loan.

(x) The loss for the year ended 31 December 2022 to be appropriated was K189,000.

Required to prepare:

(a) The revaluation account for the NMM Partnership. (6 marks)

(b) The NMM Partners' capital accounts. (8 marks)

(c) The adjusted Statement of financial position of NM Partners. (6 marks)

[Total: 20 Marks]

<u>QUESTION THREE</u>

You are the accountant at Mukosa Basic School and the school management has asked you to work on the bank reconciliation statement of the school account for the month ending 31 March 2023. To carry-out this task, you have been availed the following information: The cash book on 31 March 2023 shows a balance K475,000; while the bank statement on the same date shows an overdraft of K117,500.

On investigation, the following errors and omissions are revealed:

(i) Cheques drawn amounting to K10,000 had not been paid into the bank.

(ii) The standing order receipt of K25,000 had not been recorded by the school.

(iii) A cheque paid to a supplier Mikkie Ltd for K85,000 had been entered in the cash book as K107,500.

(iv) Cash paid into the bank amounting to K25,000 had been entered into the cashbook as K22,500.

(v) The cashbook balance had been incorrectly brought down at 1 April 2022 as a debit balance of K300,000 instead of a debit balance of K275,000.

(vi) Bank charges of K5,000 had not yet been recorded by Mukosa Basic School.

(vii) Receipts of K225,000 paid into the bank on 31 march 2023 do not appear on the bank statement until 1 April 2023.

(viii) A bank transfer of K375,000 as a zonal sport participation fee to the association had not been recorded by Mukosa basic school.

(ix) An internet transfer receipt of K2,500 shown on the bank statement has not been recorded by Mukosa Basic School.

(x) A standing order payment of K7,500 does not appear in Mukosa Basic School ledger account.

(xii) A cheque for K12,500 previously received and paid into the bank by Mukosa Basic School had been returned by the drawer's bank indicating 'account closed'.

(xiii) The bank made an error in recording a deposit made by Mukosa Basic School. The total deposited was K42,500 but was recorded as K37,500.

Required:

(a) Briefly explain two (2) reasons for preparation of bank reconciliation statements. (4 marks)

(b) Prepare an adjusted cash book bringing down the new cash book balance. (10 marks)

(c) Prepare a bank reconciliation statement as at 31 March 2023 for Mukosa Basic School. (6 marks)

[Total: 20 Marks]

QUESTION FOUR

Twite has been in retail business for five years. He has not kept accounting records before but he is required to submit financial statement to a bank in order to obtain a loan.

On 1 July 2021, Twite had inventory worth K4,850. Customers owed K7,230, but he owed suppliers K5,100. He owed the local authority K180 for Rent and rates and had paid in advance K220 for Insurance. He owned a van VC12 that cost him K 12,000 and its carrying amount was K3,500.

The following is a summary of entries for the business bank account:

Twite's Bank Account for 2021/2022

	K		K
Balance as at 1 July 2021	1,980	Wages	18,200
Receipts from customers	95,000	Rent & Rates	3,200
Sale of motor van VC12	4,000	Insurance	1,960
NPEF Lump Sum Pension	15,000	Office expenses	1,540
Commission on sale of phones	3,000	Suppliers for building materials	54,000
		Purchases of truck TP10	24,000
		Drawings	8,300
		Repairs and maintenance	1,720
		Balance on 30 June 2022	6,060
	118,980		118,980

Notes:

1. Twite banks all receipts and makes payments only from the business bank account.

2. Discounts allowed recorded were K145 whereas discounts received amounted to K255.
3. Twite wrote-off K325 as irrecoverable debts.
4. Closing inventory at the end of the year was valued at K5,500.
5. On 30 June 2022, Twite owed suppliers K3,260 and was owed K8,740 by customers. At the same time, he owed K280 for rent and rates and had paid K305 for insurance in advance.
6. At the end of the year, only the new truck existed. A full year's depreciation is chargeable at the rate of 25% per annum in the year of acquisition and none in the year of disposal.

Required:

(a) Calculate the opening capital of the business as at 1 July 2021 (4 marks)

(b) Prepared the Statement of profit or loss for the year ended 30 June 2022. (10 marks)

(c) Prepare the Statement of financial position as at 30 June 2022 (6 marks)

[Total: 20 Marks]

QUESTION FIVE

(a) You have just graduated from CA Zambia knowledge level. Your prospective employer is in the process of finding a Trainee Accounts Assistant. You are one of those aspiring to become a Trainee Accounts Assistant. You have just been invited for an interview. A personal mentor is preparing you for this interview. An e-mail has been sent to you as extracted below:

Email

From: Mentor

To: Aspiring Trainee Accounts Assistant

Date: Examination Date

Subject: Preparatory questions for an interview

(i) Explain the information needs of the following users of financial statements:
- Shareholders
- lenders

(ii) Distinguish between trade discount and cash discount.

(iii) Contrast investing activities from financing activities as per IAS 7 statement of cash flows.

(iv) Describe 'error of principle' and give an example.

(v) Contrast irrecoverable debts and allowances for receivables.

Required:

Reply to your mentor's email. (15 marks)

(b) As you continue to prepare for an interview, you come across an article that explains some of the mistakes committed by a trainee accounts assistant of a named company. Profit had been calculated as K406,040. It was later discovered that the following errors occurred prior to calculating the above profit.

(i) Bank charges amounting to K5,400 had not been communicated to the business by the end of an accounting period.
(ii) Sales returns were understated by K200.
(iii) Electricity expenses had been overstated by K700.
(iv) An irrecoverable debt of K2,700 had been recovered but not accounted for.
(v) Revenue income amounting to K1,700 had not been accounted for, while capital expenditure amounting to K150,000 had been accounted for as though it was revenue expenditure (ignore depreciation).

Required:

Prepare a statement showing the corrected profit for this company. (5 marks)

[Total:20 Marks]

QUESTION SIX

Mack is a public limited company whose shares are listed on the Zambian stock exchange. Below is the company's trial balance as at 31 December 2021:

		Dr	Cr
		K'000	**K'000**
Issued ordinary share capital (K0.50 per share)			60,000
Share premium			2,400
Sales revenue			38,100
Purchases		10,500	
Machinery		40,000	
Motor Vehicles at cost		30,000	
Accumulated depreciation:	Machinery		3,900
	Motor Vehicles		9,000
20% Bank loan			10,000
Administration expenses		2,000	
Distribution costs		3,200	
Debenture interest paid		2,000	
Carriage inwards		500	
Inventory 1 January 2021		1,300	
Receivables		5,500	
Payables			1,500
Cash at bank		39,500	
General reserves			600
Retained earnings as at 1 January 2021			9,000
		134,500	134,500

Notes:
1) Closing inventory at 31 December 2021 was K400,000.
2) Transfer K30,000 to general reserves.
3) Corporation tax at the end of the year is to be estimated at K100,000.
4) Declared dividend of K0.15 per share is to be made on ordinary share capital.
5) A bonus issue of 1 for every 10 shares held were issued by the company during the year.
6) Depreciation for the year is to be provided as follows:
   - Motor van at 20% on cost.

- Machinery at 5% using reducing balance method. Note: This cost is to be treated as part of cost of sales.

Required:

(a) Prepare Mack Plc's Statement of profit or loss for the year ended 31 December 2021 in accordance with IAS 1: Presentation and preparation of financial statements. (6 marks)

(b) Mack Plc's Statement of changes in equity for the year ended 31 December 2021 in accordance with IAS 1: Presentation and preparation of financial statements. (6 marks)

(c) Mack Plc's Statement of financial position as at 31 December 2021 in accordance with IAS 1: Presentation and preparation of financial statements. (8 marks)

[Total: 20 Marks]

END OF PAPER

CA1.1 FINANCIAL ACCOUNTING SUGGESTED SOLUTIONS

SOLUTION ONE

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

SOLUTION TWO

(a) **NMM Partners' Revaluation Account**

	K		K
Office equipment	100,000	Freehold land & Building	600,000
Receivables	250,000	Machinery	600,000
Inventory	150,000	Motor vehicles	510,000
Balance c/d	4,480,000	Goodwill	3,000,000
		Payables	270,000
	4,980,000		**4,980,000**
Capital accounts:		Balance b/d	4,480,000
Namoonga 4÷10	1,792,000		
Mainza 3÷10	1,344,000		
Mulenga 3÷10	1,344,000		
	4,480,000		**4,480,000**

(b) **NMM Partners' capital Account**

	Namoonga	Mainza	Mulenga		Namoonga	Mainza	Mulenga
	K	**K**	**K**		**K**	**K**	**K**
Bank	-	240,000	-	Bal b/d	2,100,000	1,500,000	1,050,000
Goodwill	1,500,000	-	1,500,000	Bank	2,100,000	1,500,000	1,050,000
Bals c/d	4,492,000	4,104,000	1,944,000	Revaluation	1,792,000	1,344,000	1,344,000
	5,992,000	**4,344,000**	**3,444,000**		**5,992,000**	**4,344,000**	**3,444,000**
				Bals b/d	4,492,000	4,104,000	1,944,000

NMM Partners' Current Accounts

	Namoonga	Mainza	Mulenga		Namoonga	Mainza	Mulenga
	K	**K**	**K**		**K**	**K**	**K**
Int on drawing	30,000	30,000	30,000	Int on Cap.	126,000	90,000	63,000
P or L App a/c	75,600	56,700	56,700	Bal c/d.	0	0	23,700
Balances c/d	20,400	3,300	0				
	126,000	**90,000**	**86,700**		**126,000**	**90,000**	**86,700**
				Balances b/d	20,400	3,300	0

(c) **NMM Partners**

Adjusted Statement of financial position at December 31, 2022

	K	K	
Non-current Assets:			
Freehold land and Building		6,000,000	
Machinery		2,400,000	
Office equipment		350,000	
Motor vehicles		1,560,000	
		10,310,000	
Current Assets:			
Inventory	850,000		
Receivables	1,000,000	1,850,000	
Total assets			**12,160,000**
Financed by:			
Capital accounts: Namoonga	4,492,000		
Mulenga	1,944,000	6,436,000	
Current accounts: Namoonga	20,400		
Mulenga	(23,700)	(3,300)	
Non-current liabilities – Loan (Mainza) (4,104,000+3300)		4,107,300	
Current liabilities:			
Payables	1,310,000		
Bank overdraft	310,000	1,620,000	
Total capital plus liabilities			**12,160,000**

SOLUTION THREE

(a) **Purpose of bank reconciliation;**

- To provide a check on the accuracy of entries made both in the ledger account and the bank statement. Common errors that could occur include errors of omission, duplication, mispost etc.
- To provide information on receipts and payments that have been missed e.g. bank charges, direct debits, commissions etc.

- To reduce the risk of fraud or error in the accounting records through application of segregation of duties (no one person to be in charge of recording transactions from start to finish). For example, ensuring the person in charge of preparing cash book is not the same person to compare cashbook with bank statement.

(b) **Mukosa Basic School's Updated cash book as at 31 March 2023**

	K'000		**K'000**
Balance b/f	475,000	balance b/f overstated(e)	25,000
payment overstated (c)	22,500	bank charges (f)	5,000
standing order (b)	25,000	payment transfer (h)	375,000
Internet transfer (i)	2,500	Standing order (j)	7,500
Deposit understated(d)	2,500	dishonoured cheque (k)	12,500
		Balance c/d	102,500
	527,500		527,500
Balance b/d	102,500		

(c) **Mukosa Basic School's Bank Reconciliation Statement for March 2023**

Balance per Bank statement	(117,500)
Add: unpresented cheques(a)	(10,000)
Less bank error(l)	5,000
Less: uncredited cheques (g)	225,000
Balance per Updated cash book	**102,200**

SOLUTION FOUR

(a) **CALCULATION OF CAPITAL**

ASSETS:	**K**	**K**
Motor vehicles	3,500	
Inventory	4,850	
Trade Receivables	7,230	
Insurance Prepaid	220	
Bank balance	1,980	
Total assets		**17,780**
LIABILITIES:		
Trade Payables	5,100	
Rent & Rates	180	
Total Liabilities		**(5,280)**
CAPITAL		12,500

Workings

W1 TRADE RECEIVABLES			
Balance b/d	7,230	Bank	95,000
Sales (Bal. figure)	96,980	Discount allowed	145
		Irrecoverable debt	325
		Balance c/d	8,740
	104,210		104,210
Balance b/d	8,740		

W2 TRADE PAYABLES			
Bank	54,000	Balance b/d	5,100
Discount received	255	Purchases (Bal. figure)	52,415
Balance c/d	3,260		

	57,515		57,515
		Balance b/d	
			3,260

W3	NON CURRENT ASSETS DISPOSAL A/C		
Motor vehicle	3,500	Bank	4,000
Statement of profit or loss	500		
	4,000		4,000

(b) **TWITE: STATEMENT OF PROFIT OR LOSS FOR THE YEAR ENDED 30 JUNE 2022**

	K	K
Sales		96,980
Open Inventory	4,850	
Purchases	52,415	
Total stock of goods available	57,265	
Less Clos Inventory	(5,500)	
Cost of Sales		51,765
Gross Profit		45,215
ADD: INCOME		
Commission Received	3,000	
Discount Received	255	
Profit on Disposal	500	
Total income		3,755
Gross income		48,970
LESS: EXPENSES		
Wages	18,200	
Rent & Rates (3,200-180 + 280)	3,300	
Insurance expense (1,960 + 220 – 305)	1,875	
Office expenses	1 540	
Repairs and maintenance	1,720	
Discount allowed	145	
Irrecoverable debts written-off	325	
Depreciation on motor vehicle (0.25 x 24,000)	6,000	
Total expenses		(33,105)
Net Profit		15,865

(c) **TWITE: STATEMENT OF FINANCIAL POSITION AS AT 30 JUNE 2022**

ASSETS

Non-Current Assets:	**Cost**	**Dep**	**NBV**
	K	**K**	**K**
Motor vehicles	24,000	6,000	18,000
Current Assets:			
Inventory		5,500	
Trade Receivables		8,740	
Insurance prepaid		305	
Bank balance		6,060	
Total current assets			20,605
Total assets			**38,605**

EQUITY AND LIABILITIES		
Equity		
Capital	12,500	
Add: New Capital	15,000	
Add: Net Profit	15,865	
Total assets	43,365	
Less: Drawings	(8,300)	
Capital at end		35,065
Non-Current Liabilities:		
Nil		
Current Liabilities:		
Trade Payables	3,260	
Rent & Rates owing	280	
		3,540
Total assets and liabilities		**38,605**

SOLUTION FIVE

(a) **E-MAIL**

To : Mentor@yahoo.com

From : Aspiring Accounts Assistant

Date : Date of examination

Subject : Responses to various questions

As requested by yourself, below are my responses to the questions:

i) Information needs of shareholders:
This group of stakeholders includes both existing and potential shareholders. They require information concerning the performance of the entity measured in terms of profitability and the extent to which the profits may be distributed as dividends. They are also interested in the social economic policies of the entity so they decide whether to associate with an entity of the kind of policies. For example, whether an entity adheres to sound environmental practices.

Information needs of banks and other lenders:
Both existing and potential lenders require information relating to the ability of the entity to repay the interest on loans as they fall due. Additionally, they are interested in the longer term growth and stability of the entity to ensure that it is capable of repaying loans as they fall due.

ii) Discount is the reduction in the price of goods below the amount at which those goods would normally be sold to other customers or granted by the supplier. A discount can be trade (also called quantity) or cash (also called settlement).

The differences between trade discount and cash discount are that trade discount is reduction in the amount of money demanded from a customer which usually results from buying goods in bulk/ or for being a loyal customer/or due to nature of trade. Trade discount is given on supplier's invoice. There is no separate accounting required and it is never recorded in double entry form. Trade discount is permanent in nature once offered.

Cash discount (or settlement discount) is an optional reduction in the amount of money payable by a customer. It is given for immediate or very prompt payment (financing decision). It needs to be recorded separately in the books of accounts. This means it is recorded in double entry form and can either be discount allowed or discount received. To supplier who offers the discount, it is called discount allowed (to customer). To customer who receives the discount, it is called discount received (from supplier). Discount is not permanent in nature as it is withdrawn if payment not received within period indicated.

iii) Investing activities are the acquisition and disposals of non-current assets and other investments. Large outflow may indicate business seeking growth. Large inflow may indicate business struggling hence selling off non-current assets in order to survive.

Financing activities are activities that result in changes in the size and composition of the equity and capital borrowings of entity. It includes proceeds from the issue of shares, along with receipt or repayment of loans during the year.

iv) Error of principle occurs when a transaction is recorded in the wrong account and the wrong account is of a different class from that of the correct account. Further, the side of the wrong account maintains the double entry principle, i.e. the side that should have been recorded in the correct account is used.

An example of error of an principle is when the purchase of a non-current asset is recorded in the purchases account. Here there is an asset and expense account involved but the correct side is usually maintained.

v) An irrecoverable debt is the one an entity feels certain it may not be recovered. At this point, there are some indicators from the situation surrounding the customer that point to the recoverability of the debt. It becomes prudent to remove the receivable balance from the books as it is no longer an asset. An expense is then recognized.

Some debts are only doubtful, that is, it is not certain that the customer will not pay. In this case, it is not appropriate to eliminate the receivable balance because the customer may pay after all. However, we must recognize that the value of the receivable is probably less than it appears to be. Thus, the technique of creating an allowance for receivables.

I hope the responses given in this e-mail address your queries on this subject. Kindly contact me for any clarification.

Yours faithfully,
Prospective trainee accounts assistant

(b) **Statement showing the corrected profit**

	'K'
Unadjusted net profit	406,040
Bank charges not recorded	(5,400)
Sales returns understated	(200)
Electricity overstated	700
Irrecoverable debt recovered	2,700
Revenue income not accounted for	1,700
Capital expenditure reversal	150,000
Corrected net profit	**555,540**

SOLUTION SIX

(a) **Mack's plc Statement of profit or loss for the year ended 31st December 2021**

	K'000
Sales revenue	38,100
Cost of sales (W1)	(13,705)
Gross profit	24,395
Administration expenses (W2)	(8,000)
Distribution costs	(3,200)
Debenture interest	(2,000)
Profit before tax	11,195
Income tax	(100)
Profit for the year	11,095

Workings for the statement of profit or loss

1. Cost of sales

	K'000
Opening inventory	1,300
Purchases	10,500
Carriage inwards	500
Depreciation on Machinery (40,000 – 3,900) × 5%	1,805
Closing inventory	(400)
	13,705

2. Administration expenses

	K'000
Administration expenses as per trial balance	2,000
Depreciation on Motor Vehicles (30,000) × 20%	6,000
	8,000

(b) **Mack's plc Statement of changes in equity for the year ended 31st Dec 2021**

	Share Capital	Share premium	General reserve	retained earnings	Total
	K'000	K'000	K'000	K'000	K'000
Balance as at 1/1/2021	60,000	2,400	600	9,000	72,000
Changes in equity:					
Proposed dividends				(19,800)	(19,800)
Transfer to General reserve			30	(30)	Nil
Profit for the year				11,095	11,095
Bonus issue	6,000	(2,400)		(3,600)	Nil
Balance at 31/12/2021	66,000	Nil	630	(3,335)	63,295

(c) **Mack's plc Statement of financial position as at 31st December 2021**

Assets	**K'000**	**K'000**	**K'000**
Non-current Assets	Cost	Acc. Dep.	NBV
Machinery	40,000	5,705	34,295
Motor Vehicles	30,000	15,000	15,000
	70,000	20,705	49,295
Current Assets			
Closing inventory		400	
Receivables		5,500	
Cash at bank		39,500	
			45,400
Total Assets			**94,695**
Equity and liabilities			
Ordinary share capital		66,000	
Share premium		Nil	
General reserve		630	
Retained earnings		(3,335)	
			63,295
Non-current liabilities			
20% Bank loan			
	10,000		
Current liabilities			
Payables		1,500	
Proposed dividends		19,800	
Corporation tax		100	
			21,400
Total equity and liabilities			**94,695**

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA CERTIFICATE IN ACCOUNTANCY

CA 1.2 BUSINESS STATISTICS

WEDNESDAY 14 JUNE 2023

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

INSTRUCTIONS TO CANDIDATES

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

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

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

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

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

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

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

8. Present legible and tidy work.

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

10. A mathematical standard formale 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 Classification of data on the basis of time period is called.

A. Qualitative classification
B. Quantitative classification
C. Chronological classification
D. Array classification

(2 marks)

1.2 In quality control of manufactured items, the most common measure of dispersion is

A. Quartile deviation
B. Range
C. Average deviation
D. Standard deviation.

(2 marks)

1.3 Calculate the standard deviation of data representing the student performance in an exam:

26, 33, 38, 20, 25, 20.

A. 52
B. 27
C. 25.5
D. 7.2

(2 marks)

1.4 Regression modeling is a statistical framework for developing a mathematical equation that describes how;

A. one explanatory and one or more response variables are related
B. several explanatory and several response variables response are related
C. one response and one or more explanatory variables are related
D. All of these are correct. (2 marks)

1.5 A stock of pens consists of 124 black pens to which 31 are defective and others are good. A boy went to the shop to purchase a black pen. The shopkeeper randomly draws one pen and gives it to him. What is the probability that the boy will buy the good pen?

A. $\frac{31}{124}$
B. $\frac{93}{124}$
C. $\frac{31}{93}$
D. None of the above (2 marks)

1.6 The arithmetic mean of 15 items is 5 and the arithmetic mean of 8 items is 7. The combined arithmetic mean is

A. 4
B. 5
C. 6
D. 10.08

(2 marks)

1.7 Given two (2) independent event A and B, which of the following is **not** true about the probability of A and B?

A. $P(A/B) = P(A)$
B. $P(A \cup B) = P(A) \times P(B)$
C. $P(B/A) = P(B)$
D. $P(A \cap B) = P(A) \times P(B)$

(2 marks)

1.8 Ten (10) families have an average of three (3) boys. How many boys do they have together?

A. 3
B. 10
C. 13
D. 30

(2 marks)

1.9 If the coefficient of determination is a positive value, then the regression equation

A. Must have a positive slope
B. Must have a negative slope
C. Could have either a positive or a negative slope
D. Must have a positive y intercept (2 marks)

1.10 Three (3) vendors were asked to supply a very high precision component. The respective probabilities of their meeting the strict design specification are 0.3, 0.25 and 0.4. Each vendor supplies one component. The probability that out of three components supplied by the vendors, all will meet the design specification is;

A. 0.03
B. 0.95
C. 0.315
D. 0.05

(2 marks)

[Total: 20 Marks]

SECTION B

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

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

(a) Fifty (50) customers in the housewares section of a department store were asked to state their primary reason for visiting the store today. Construct a relative frequency bar chart to describe the following results:

Return an item purchased previously	8
Make a new purchase	25
Browse	14
Other	3

(8 marks)

(b) Give specific business, commercial or industrial example of what:

(i) The arithmetic mean would be used in preference to any other average (3 marks)

(ii) The mode would be used in preference to the median. (3 marks)

(iii) The median would be used in preference to the arithmetic mean.

(3 marks)

(c) A contractor is interested in the total cost of a project on which he intends to bid. He estimates the materials will cost K15 000 and that his labor costs will be 200 per day. If the project takes X days to complete, the total labor costs will be $200x$ kwachas and the total cost of the project (in kwachas) will be

$$C = 15\,000 + 200x$$

The contractor forms subjective probability assessments of likely completion time for the project is indicated in the table.

Completion time X (days)	12	13	14	15	16
Probability	0.2	0.25	0.3	0.12	0.13

Find the expected cost of the project. (3 marks)

[Total: 20 Marks]

QUESTION THREE

Mr. Chola works as a researcher at Zambia Scientific Centre. He thinks that there is an Association between a person's confidence and their height. He devises a test to measure the confidence, y, of nine (9) people and their height, x cm. The data collected is shown in the table below:

Height (cm), x	179	169	187	166	162	193	161	177	168
Confidence, y	569	561	579	561	540	598	542	565	573

Required:

(i) Draw a scatter diagram to represent these data. (3 marks)

(ii) Calculate the value of the coefficient of correlation. (8 marks)

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

(iv) Interpret the slope of the regression line (1 mark)

(v) Find the confidence for the person who has a height of 172 cm. (2 marks)

[Total: 20 Marks]

QUESTION FOUR

(a) A study is conducted to assess the health status of citizens in Mansa. Demographic data is obtained through the use of a questionnaire. Given the following questions from the survey, state what type of variable each question deals, qualitative or quantitative.

(i) What is your age? (1 mark)

(ii) What is the name of your place of birth? (1 mark)

(iii) What is your weight in kilograms? (1 mark)

(iv) Have you been diagnosed with a chronic illness before? (1 mark)

(v) State your levels of education achieved? (1 mark)

(vi) Do you drink alcohol? (1 mark)

(b) The number of vans that have been requested for rental at a car rental agency during a 50-day period is identified in the table below. The observed frequencies have been converted into probabilities for this 50-day period in the last column of the table. X=number of vans rented on a randomly selected day.

Daily demand for rentals of vans in a 50-Day period

Possible demand (X)	**Probability P(X)**
3	0.06
4	0.14

5	0.24
6	0.28
7	0.20
8	m

Required:

(i) Determine the missing probability m. (3 marks)

(ii) Find $P(X \geq 4)$ (2 marks)

(iii) What is the expected number of rented vans on a randomly selected day? (4 marks)

(iv) Calculate the standard deviation for number of vans rented on a randomly selected day. (5 marks)

[Total: 20 Marks]

QUESTION FIVE

On a certain day, the number of computer hardware accessories on 40 shelves in a computer warehouse were noted and grouped as shown:

Number of computer hardware accessories	Number of shelves
31 - 35	4
36 - 40	6
41 - 45	10
46 - 50	13
51 - 55	5
56 – 60	2

Required:

(a) Calculate the mean number of computer accessories on a shelf. (5 marks)

(b) Calculate the median and the mode of the data. (6 marks)

(c) Calculate the standard deviation of the data. (6 marks)

(d) Comment on the distribution of the data. (3 marks)

[Total: 20 Marks]

QUESTION SIX

(a) The standard deviation of the racing horses at the Olympics was 9.9 km/h with an average speed of the horses being 40 km/h. If the data is normally distributed, calculate the following;

(i) What is the probability that the horse speed would be less than 42km/h? (4 marks)

(ii) What is the probability that the horse speed would be between 35km/h and 42 km/h. (5 marks)

(b) A company conducted a set of six (6) aptitude tests for two (2) job applicants. The tests results are indicated in the table below:

Murray	46	61	26	31	71	43
Jordan	81	71	61	21	96	56

Required:

Calculate the coefficient of variation for Murray and for Jordan and use the result to select the more consistent applicant. (11 marks)

[Total: 20 Marks]

END OF PAPER

CA 1.2 BUSINESS STATISTICS SUGGESTED SOLUTIONS

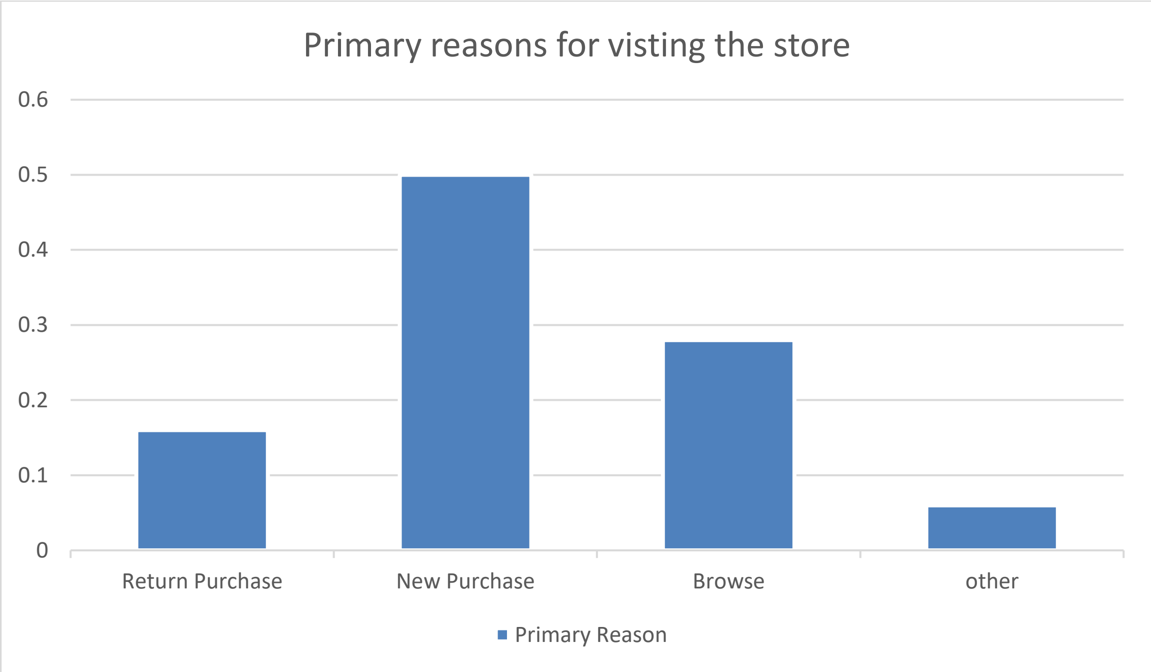
SOLUTION ONE

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

SOLUTION TWO

(a) Construct the relative frequency distribution table as follows:

Frequency (f)	Relative frequency (Rf)
8	$\frac{8}{50} = 0.16$
25	$\frac{25}{50} = 0.50$
14	$\frac{14}{50} = 0.28$
3	$\frac{3}{50} = 0.06$



(b)

(i) The mean would always be chosen in a symmetrical distribution or where further statistical calculations or analysis might be required. For example, number of items produced per day on a large assembly line, the number of orders received per month for a firm.

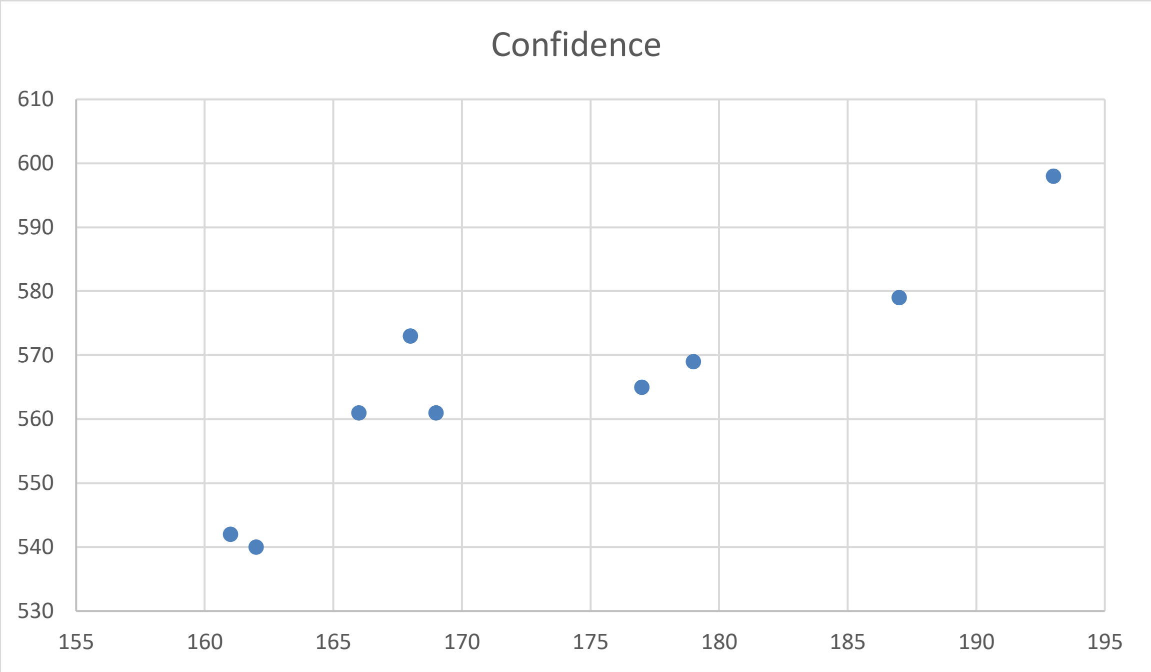
(ii) The mode is the most common observation or most popular item. In this case we can talk about the number of customers in a queue, number of defects in a sample, sales of shoes by size, or most common fashion.

(iii) When the distribution is skewed or data is difficult or expensive to measure, the median will be the appropriate measure of location. For example, salary negotiations, turnover of a large set of companies, time to distribution in test of components.

(c) $E(C) = 15\ 000 + 200E(X)$. We first calculate the completion time of the project. That is $E(X) = \sum xP(x) = 12(0.2) + 13(0.25) + 14(0.3) + 15(0.12) + 16(0.13)$.
We get $E(X) = 2.4 + 3.25 + 4.2 + 1.8 + 2.08 = 13.73$
Therefore, the expected cost of the project is: $E(C) = 15\ 000 + 200(13.73) = K17\ 746.00$

SOLUTION THREE

(i)



Height (cm)

(ii)

x	y	x^2	y^2	xy
179	569	32,041	323,761	101,851
169	561	28,561	314,721	94,809
187	579	34,969	335,241	108,273
166	561	27,556	314,721	93,126
162	540	26,244	291,600	87,480
193	598	37,249	357,604	115,414
161	542	25,921	293,764	87,262
177	565	31,329	319,225	100,005
168	573	28,224	328,329	96,264
$\sum x = 1{,}562$	$\sum y = 5{,}088$	$\sum x^2 = 272{,}094$	$\sum y^2 = 2{,}878{,}966$	$\sum xy = 884{,}484$

$$\bar{x} = \frac{\sum x}{n} = \frac{1,562}{9} = 173.6; \qquad \bar{y} = \frac{\sum y}{n} = \frac{5,088}{9} = 565.3$$

$$SS_{xx} = \sum x^2 - \frac{\left(\sum x\right)^2}{n} = 272,094 - \frac{1,562^2}{9} = 1000.2$$

$$SS_{yy} = \sum y^2 - \frac{\left(\sum y\right)^2}{n} = 2,878,966 - \frac{5,088^2}{9} = 2,550$$

$$SS_{xy} = \sum xy - \frac{\left(\sum x\right)\left(\sum y\right)}{n} = 884,484 - \frac{(1,562)(5,088)}{9} = 1,433.3$$

Therefore, the coefficient of correlation is

$$r = \frac{SS_{xy}}{\sqrt{SS_{xx}SS_{yy}}} = \frac{1,433.3}{\sqrt{(1,000.2)(2,550)}} = 0.897$$

(iii) $\hat{y} = \hat{\beta}_0 + \hat{\beta}_1 x$

$$\hat{\beta}_1 = \frac{SS_{xy}}{SS_{xx}} = \frac{1,433.3}{1,000.2} = 1.43$$

$$\hat{\beta}_0 = \bar{y} - \hat{\beta}_1 \bar{x} = 565.3 - (1.43)(173.6) = 317$$

Therefore, the equation of the regression line

$$y = 1.43x + 317$$

(iv) For every 1 cm increase in height, the confidence measure increases by 1.43.

(v)

$$y = 1.43x + 317$$
$$y = 1.43(172) + 317$$
$$y = 245.96 + 317$$
$$y = 562.96\,\text{Kg}$$

SOLUTION FOUR

(a) (i) quantitative
ii) qualitative
iii) quantitative
iv) qualitative
v) qualitative
vi) qualitative

(b)

(i)

Possible demand (X)	Probability P(X)
3	0.06
4	0.14
5	0.24
6	0.28
7	0.20
8	m

$$m = 1 - (0.06 + 0.14 + 0.24 + 0.28 + 0.2)$$
$$m = 1 - 0.92 = 0.08$$

(ii) $\boldsymbol{P(X > 4) = 0.14 + 0.24 + 0.28 + 0.2 + 0.08 = 0.94}$

(iii) **Expected value** $\boldsymbol{E(X) = \sum xP(x) = 3(0.06) + 4(0.14) + 5(0.24) + 6(0.28) + 7(0.2) + 8(0.08)}$

$$\boldsymbol{E(x) = 5.66}$$

(iv)

$$\boldsymbol{V(X) = E(x^2) - [E(x)]^2}$$

$$\boldsymbol{E(X^2) = \sum x^2P(x) = 3^2(0.06) + 4^2(0.14) + 5^2(0.24) + 6^2(0.28) + 7^2(0.2) + 8^2(0.08)}$$

$$\boldsymbol{E(X^2) = 33.78}$$

$$\boldsymbol{V(X) = 33.78 - [5.66]^2 = 33.78 - 33.0356 = 0.74}$$

$$\boldsymbol{standard\ deviation = \sqrt{0.74} = 0.86}$$

15	10	60	40	8	2	50	15	25	5	60	10

SOLUTION FIVE

Summary statistics table:

Class Limits	Xi	f	fx	F	$fi(Xi-\bar{x})^2$
31 - 35	33	4	132	4	564.0625
36 - 40	38	6	228	10	283.5938
41 - 45	43	10	430	20	35.15625
46 - 50	48	13	624	33	126.9531
51 - 55	53	5	265	38	330.0781
56 - 60	58	2	116	40	344.5313
		40	**1795**		**1684.4**

(a) **Mean:**

$$\frac{1}{n}\sum fx = \frac{1}{40}(1795) = 44.875$$

(b) To find the median, first locate the median class which is the class that fall on the mid of the values of cumulative frequency, then find the lower limit of the median class and the class width, and calculate using the formula

$$median = L_k + \frac{w}{n_k}(\frac{n}{2} - cf_{k-1}). \quad k = 3$$

$$41 + \frac{4}{10}\left(\frac{40}{2} - 10\right) = 45$$

Mode:

$$\mathrm{Mo} = \mathrm{L_k} + \omega\left(\frac{\mathrm{d_1}}{\mathrm{d_1+d_2}}\right) \quad , \quad \mathrm{k} = 4$$

$$\mathrm{Mo} = 46 + 4\left(\frac{3}{3+8}\right) = 47.09$$

Note:

$\mathrm{d_1} = \mathrm{n_k} - \mathrm{n_{k-1}} = 13 - 10 = 3$ $\qquad$ $\mathrm{d_2} = \mathrm{n_k} - \mathrm{n_{k+1}} = 13 - 5 = 8$

(C) **Standard deviation**

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

$$\boldsymbol{s} = \sqrt{\frac{1684.4}{\mathbf{40 - 1}}} = \mathbf{6.57}$$

(d)

$$S_k = \frac{3(M_d - \bar{X})}{S} = \frac{3(45 - 44.874)}{\sqrt{6.57}} = 0.15$$

The data is slightly skewed to the right.

SOLUTION SIX

(a) NORMAL DISTRIBUTION

(i)

$$\boldsymbol{P}(X < 42) = P\left(Z < \frac{X-\mu}{\sigma}\right)$$
$$= P\left(Z < \frac{42-40}{2.5}\right)$$
$$= P(Z < 0.8)$$
$$= 1 - 0.2119$$
$$= 0.7881$$

(ii)

$$\boldsymbol{P}(35 < X < 42) = P\left(Z > \frac{X-\mu}{\sigma}\right)$$
$$= P\left(\frac{35-40}{2.5} < Z < \frac{42-40}{2.5}\right)$$
$$= P(-2 < Z < 0.8)$$
$$= 1 - (0.0228 + 0.2119)$$
$$= 0.7653$$

(b)

Murray	46	61	26	31	71	43
Jordan	81	71	61	21	96	56

MURRAY:

Mean $=\bar{X} = \frac{1}{n}\sum x = \frac{46+61+26+31+71+43}{6} = \frac{278}{6} = 46.33$

Sample Standard deviation $S = \sqrt{\frac{14364 - \frac{(278)^2}{6}}{6-1}} \approx \sqrt{296.06} = 17.2$

Coefficient of variation $CV_{murray} = \frac{S}{\bar{x}} \times 100 = \frac{17.2}{46.33} \times 100 = 37.12\%$

JORDAN:

Mean $=\bar{X} = \frac{1}{n}\sum x = \frac{81+71+61+21+96+56}{6} = \frac{386}{6} = 64.33$

Sample Standard deviation $S = \sqrt{\frac{28116 - \frac{(386)^2}{6}}{6-1}} \approx \sqrt{656.66} = 25.6$

Coefficient of variation $CV_{JORDAN} = \frac{S}{\bar{x}} \times 100 = \frac{25.6}{64.33} \times 100 = 39.32\%$

Interpretation: the results from Murray are more consistent since CV is lower than for Jordan

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA CERTIFICATE IN ACCOUNTANCY

CA1.3: BUSINESS ECONOMICS

TUESDAY 13 JUNE 2023

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

INSTRUCTIONS TO CANDIDATES

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

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   Section A: Ten (10) compulsory multiple choice questions.
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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 In a command economy, ________ establishes what will be produced and when, sets production goals, and makes rules for distribution.

A. Individuals and households
B. Only privately owned firms
C. A centralized authority
D. Individuals, households and privately owned firms

(2 marks)

1.2 Suppose that a decrease in the price of good X results in fewer units of good Y being demanded. This implies that X and Y are

A. Complementary goods.
B. Normal goods.
C. Inferior goods.
D. Substitute goods

(2 marks)

1.3 The elasticity for the demand of durable goods is __________.

A. Zero
B. Equal to unity
C. Greater than unity
D. Less than unity

(2 marks)

1.4 A monopoly is said to misallocate resources

A. MC is less than AC
B. Because under certain circumstances different consumers are charged different prices for the same product or services
C. Because the market price under monopoly is greater than the marginal cost of additional output and AC is less than MC
D. Because it faces a downward-sloping demand curve

(2 marks)

1.5 When an individual quits his/her job and decides to stay at home for a while, the labor-force participation rate

A. Decreases.
B. Increases.
C. Stays the same.
D. May increase or decrease, depending on the length of time he/she stays at home.

(2 marks)

1.6 The basis of distinction between market price and factor cost is

A. Net factor income from abroad
B. Net indirect taxes (i.e., indirect taxes – Subsidies)
C. Net indirect taxes (i.e., indirect taxes + Subsidies)
D. Depreciation (consumption of fixed capital)

(2 marks)

1.7 Liquidity refers to

A. The stability of an asset's expected return.
B. The size of an asset's expected return.
C. The ease with which an asset can be turned into cash.
D. The amount of wealth a person has to invest.

(2 marks)

1.8 According to the theory of ________, specialization and free trade will benefit all trade partners, even when some are absolutely more efficient producers than others.

A. Comparative advantage
B. Absolute advantage
C. Social equity
D. Laissez-faire

(2 marks)

1.9 The difference between foreign direct investment and portfolio investment is that

A. Portfolio investment mostly represents the sale and purchase of foreign financial assets such as stocks and bonds that do not involve a transfer of control.
B. Foreign direct investment mostly represents the sale and purchase of foreign financial assets such as stocks, whereas portfolio investment mostly involves the sale and purchase of foreign bonds.
C. Foreign direct investment is about buying land and buildings, whereas portfolio investment is about buying stocks which involves the transfer of control.
D. All of the above

(2 marks)

1.10 Under the fixed exchange rate regime

A. the combined balance on the current and capital accounts will be equal in size, but opposite in sign, to the change in the official reserves.
B. the balance on the current and capital accounts will be equal in size, but opposite in sign.
C. a current account surplus or deficit must be matched by an official reserves deficit or surplus.
D. a capital account surplus or deficit must be matched by an official reserves deficit or surplus

(2 marks)
[Total: 20 Marks]

SECTION B

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

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

Managers have to make tough choices that involve benefits and costs. Until recently, however, it was simply impractical to compare the relative pluses and minuses of a large number of managerial decisions under a wide variety of operating conditions. For many large and small organizations, economic optimization remained an elusive goal. It is easy to understand why early users of personal computers were delighted when they learned how easy it was to enter and manipulate operating information within spreadsheets. Spreadsheets were a pivotal innovation because they put the tools for insightful demand, cost, and profit analysis at the fingertips of managers and other decision makers. Today's low-cost but powerful PCs and user-friendly software make it possible to efficiently analyze company-specific data and broader industry and macroeconomic information from the Internet. For TK ltd, a producer of Mojo, It has never been easier nor more vital for its managers to consider the implications of various managerial decisions under an assortment of operating scenarios

The table below shows the quantity of "MoJo" with corresponding total variable cost and total cost produced at TK Limited:

Output per week(units)	Total variable cost(TVC)	Total cost(TC)	Marginal cost(MC)	Average variable costs(AVC)	Average total cost (ATC)
0	K 0	K200			
2	100	300			
5	200	400			
9	300	500			
12	400	600			
14	500	700			
15	600	800			

(a) Determine the firm's fixed costs (FC) (2 marks)

(b) Complete the columns for Marginal Cost (MC), Average variable cost (AVC) and average total cost (ATC)
(9 marks)

(c) Explain what the U-shaped average costs signify. (5 marks)

(d) If the firm is selling its product at K50 per unit:

(i) At what output does the firm breakeven (2 marks)

(ii) Explain how a firm can use the marginal revenue and marginal cost condition to determine profit maximising output (2 marks)

[Total: 20 Marks]

QUESTION THREE

"The growth in consumer price as measured by inflation rate, has lowered to single digits. For September 2022, inflation was recorded at 9.9% from 22.1% in September 2021. The key drivers of lower inflation have been the appreciation of the kwacha and improved supply of food items. The performance of the banking sector remained strong, supported by growth in capital through retained earnings. Liquidity conditions were also favourable on account of high stock of liquid assets and disbursements from the Targeted Medium-Term Refinancing facility. Asset quality improved as the non-performing loans ratio continued to be below the 10% prudential benchmark at 6.4% at the end of August 2022. The improvement in credit performance was largely attributed to recoveries, restructuring of credit facilities and bad loan written off".

Source: 2023 Budget Address to Parliament

(a) Define inflation (2 marks)

(b) Explain any three (3) factors that influence inflation (6 marks)

(c) Discuss the relationship between inflation and the exchange rate (4 marks)

(d) Explain liquidity as an important objective of the central bank (5 marks)

(e) Outline three (3) reasons for the improvement of asset quality by commercial banks (3 marks)

[Total: 20 Marks]

QUESTION FOUR

The market for labour (skilled or unskilled), like any other product depends on the demand and supply for that type of labour. The demand and supply conditions in the market for unskilled labor are important concerns to business and government decision makers. An unskilled worker in one sector or country may earn more than another unskilled worker in another sector or country. A number of factors have the potential to influence the demand and supply of this type of labour, and hence the equilibrium wage rate. The government usually sets a mandated minimum wage above the equilibrium or market clearing, wage level. This is in an effort to curb the exploitation in some sectors. However, minimum wage may have some downsides.

(a) Explain how the following factors influence the demand for and/or the supply of unskilled labour.

(i) An increase in the quality of secondary education. (3 marks)
(ii) A rise in welfare benefits. (3 marks)

(iii) An increase in the popularity of self-service gas stations. (3 marks)
(iv) A fall in interest rates. (3 marks)

(b) Show diagrammatically the effect of an increase in the minimum wage. (4 marks)

(c) What are the negative effects of increasing of the minimum wage? (4 marks)

[Total: 20 Marks]

QUESTION FIVE

Traditionally, there are three (3) types of economic systems namely Capitalist or free market economy, Communist or planned economy and Mixed economy. Each of these systems have been used by different countries at different times. Each of these systems has its own merits and demerits.

In Zambia, a major switch in the structure of the country's economy came with the Mulungushi Reforms of April 1968, in which the government declared its intention to acquire an equity holding 51% or more in a number of key foreign owned firms to be controlled by the Industrial Development Corporation (INDECO). By January 1970 a majority of shareholding had been acquired in the Zambian operations of two major mining corporations, the Anglo American Corporation and the Rhodesia Selection Trust (RST), which became the Nchanga Consolidated Copper Mines (NCCM). Insurable companies followed next. However, banks resisted the takeover. When the Movement for Multiparty Democracy (MMD) came into power in 1992, they switched to economic liberalisation.

(a) State any three (3) characteristics of a planned or communist economy. (6 marks)

(b) Outline any three (3) problems of state ownership of the means of production (6 marks)

(c) Outline any three (3) benefits of state ownership of the means of production. (6 marks)

(d) State with justification the type of economic system that Zambia embraces currently (2 marks)

[Total: 20 Marks]

QUESTION SIX

The Herbal Tea Market has gained momentum in recent times because of the increase in awareness of nutritional food consumption and healthcare. Due to its health-promoting characteristics, which include anticancer, anti-diabetic, anti-inflammatory, and antioxidant capabilities, herbal tea is widely utilized in traditional medicine throughout cultures. The largest tea-exporting countries in 2017 were China (USD 1.6 billion), Sri Lanka (USD 1.5 billion) and Kenya (USD 1.4 billion), while the largest importing countries were Pakistan (USD 550 million), Russia (USD 525 million) and the United States (USD 487 million). World tea trade is valued at about USD 9.5 billion, accounting for an important source of export earnings.

The export earnings of these countries contributes favorably to the current account of the countries' balance of payments.

(a) Outline any two (2) benefits of exporting and any two (2) benefits of importing. (4 marks)

(b) Describe the main components of the current account of the balance of payments.

(8 marks)

(c) Describe any two (2) methods that a country can use to correct a persistent current account deficit. (8 marks)

[Total: 20 Marks]

END OF PAPER

CA 1.3 BUSINESS ECONOMICS SUGGESTED SOLUTIONS

SOLUTION ONE

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

SOLUTION TWO

Mojo:

(a) The fixed cost is K200

(b) The table is given below:

Output per week(units)	Total variable cost(TVC)	Total cost(TC)	Marginal cost(MC)	Average Variable costs(AVC)	Average total cost (ATC)
0	0	200	-	-	-
2	100	300	50.00	50.00	150.00
5	200	400	33.33	40.00	80.00
9	300	500	25.00	33.33	55.55
12	400	600	33.33	33.33	50.00
14	500	700	50.00	35.71	50.00
15	600	800	100.00	40.00	53.33

(c) The U-shaped average curves indicate that as output expands, average costs at first declines due to economies of scale. Eventually, average costs stop falling and may be constant over some range. If output expands further, the firm may encounter diseconomies of scale as costs rise.

(d) If the selling price is K50:

(i) Quantity needed to breakeven is 14 units. The breakeven point occurs where total revenue equals total costs. At 14 units, total revenue = 14 units x K50 = K700, and total cost = K700 (given in the table).

(ii) Profit maximisation condition of MR = MC is very important in firm decision making. If MR = MC, the firm is maximising profit. If MR < MC, the firm must expand it scale. Finally, if MR > MC, the firm must reduce its scale of operation

SOLUTION THREE

(a) Inflation is defined as a sustained or continuous increase in average price level over time

(b) Factors that affect inflations are:

- Inflation rate abroad: Inflation rates in other trading partners have an influence in the inflation rates in the country
- Interest rates abroad: Interest rates abroad affect the inflation rate in the country through the capital movement
- Monetary policy: The central bank influences inflation by either adopting a contactionary or expansionary monetary policy
- Speculation
- Expectations
- Domestic interest rate
- Exchange rate

(c) The relationship between inflation and exchange rate is that between two trading partners, the country with higher inflation rate will have a weaker currency while the other with lower inflation rate will have a stronger currency.

(d)

- Liquidity is about money in circulation from the point of view of the central bank.
- It is important for the central bank to monitor liquidity to ensure smooth flow of the payments system.
- It increases convertibility of financial assets into streams of cash

(e) The three factors are:

- debt recovery
- debt restructuring
- debt write off
- improves the confidence in the financial system

SOLUTION FOUR

(a) Influence on demand and supply

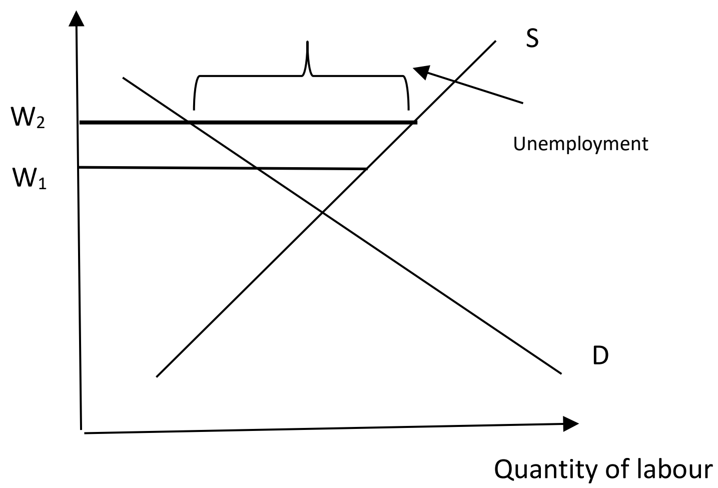
(i) An increase in the quality of secondary education has the effect of increasing worker productivity and will cause an increase or rightward shift in the demand for unskilled labor. To the extent that the benefits of an increase in the quality of education are recognized by students, more will stay in school and a secondary effect of a decrease or leftward shift in the supply of unskilled labor will also be observed. This shift will be reinforced as workers graduate from the unskilled to the skilled segment of the labor force.

(ii) A rise in welfare benefits makes not working more attractive and will cause a decrease or leftward shift in the supply of unskilled labor.

(iii) A Self-service, involve a substitution of the consumer's own labor for hired unskilled labor. As self-service increases in popularity, a decrease, or leftward shift, in the demand for unskilled labor occurs.

(iv) Holding all else equal, a fall in interest rates will increase the attractiveness of capital relative to labor. Employers can be expected to substitute capital for the now relatively more expensive labor. A decrease or leftward shift in the demand for unskilled labor will result.

(b) An increase in the minimum wage from w1 to w2 will lead to an increase in unemployment, as shown in the diagram.



(c) Increasing the minimum wage would increase the cost of employing low-wage workers. As a result, some employers would employ fewer workers than they would have under a lower minimum wage.

SOLUTION FIVE

(a) The characteristics of a planned economy are:
- State ownership of productive resources
- State determines the prices of goods and services
- Output distributed according to policy and administrative decision
- Production is determined by the planners
- Future direction of the economy is planned in advance over many years

(b) The following are the problems of state ownership of the means of production:
- There is less consumer choice on goods and services due to the existence of monopolies
- There is too much political interference in appointments rather than professionalism
- Parastatals are too bureaucratic and wasteful hence inefficient and ineffective
- Monopolies find it easy to increase prices to cover their inefficiencies and over-manning
- Many parastatals are not economically viable hence fail to break even

(c) The following are the benefits of state ownership are:
- Fair distribution on the basis of need and entitlements
- Resources are devoted to building the economy
- Avoidance of wasteful duplication and competition
- Avoidance of pollution and making of undesirable products

(d) Currently Zambia embraces a mixed economic system because both the public and private sectors own resources and provide goods and services to the citizens.

SOLUTION SIX

(a) Benefits of Exporting and Importing

Exporting

- Access to more consumers and businesses. If you're only doing business in this country, you may be limiting the total potential profits you could earn on opportunities to expand your business worldwide.
- Diversifying market opportunities so that even if the domestic economy begins to falter, you may still have other growing markets for your goods and services.
- Expanding the lifecycle of mature products. If the domestic market seems saturated for your goods and services, you can introduce them to new markets in other parts of the world.

Importing

- Greater production can lead to larger economies of scale and better margins.
- Introducing new products to the market.
- Reducing costs. Another major benefit of importing is the reduction in manufacturing costs. Many businesses today find importing products, parts of products and resources more affordable than producing them locally.
- Providing high quality products.

(b) The Current Account

- **Trade in goods** (known as **visible** or **trade** account)
- The **exports** and **imports** of physical commodities such as copper and maize are recorded on this account. The account may show a surplus or a deficit. Exports are money coming into a country and if the exports are higher than the imports, then there is a surplus on the visible trade account and vice versa.

- **Trade in services** (known as **invisible trade** account)
- This is usually recorded as a net figure, implying the difference between exports and imports of services such as tourism, insurance, civil aviation, patents, foreign aid, grants, etc.
- **Net Income flows:** Income flows consist of wages, interest and profits flowing into and out of the country.
- **Current transfers of money:** Government contributions to, and receipts from international organisations and international transfers of money by private individuals and firms.

(c) Correcting a Balance of Payments Deficit

- **Devaluation/depreciation**: Devaluation of a currency is a reduction in the exchange rate of the currency relative to other currencies. The objective of devaluing a country's currency to make exports cheaper and imports expensive, by reducing the price of exports to foreign buyers (i.e. in foreign currency terms) and increasing the price of imports in terms of the domestic currency.
- **Deflation/Fiscal policy**: Deflationary measures are aimed at reducing aggregate demand and this can be achieved by either increasing interest rate to discourage borrowing or increasing tax rates in order to reduce consumption expenditure. The effect of the deflationary measures is to reduce the demand for goods and services, including the demand for imports. If imports are high, demand for them is reduced by reducing the demand in the economy in general, as long as the demand for imports is income inelastic.

- **Direct controls** (discouraging imports whilst encouraging exports).: A government can impose trade restrictions like quotas, import duty, exchange controls, health and safety regulations etc. Increase exporters' competitiveness on the international market by subsidizing exporters. A government may also adopt policies to promote exports e.g. zero-rating VAT on exports, export credit guarantees etc. Eventually the policies result in more exports.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CERTIFICATE IN ACCOUNTANCY

CA 1.4: COMMERCIAL AND CORPORATE LAW

FRIDAY 16 JUNE 2023

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

INSTRUCTIONS TO CANDIDATES

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

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

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

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

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

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

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

8. Present legible and tidy work.

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

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

SECTION A – (COMPULSORY)

Attempt all ten (10) multiple choice questions

QUESTION ONE

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

1.1 A company once registered becomes a separate legal entity from its owners. In which case was this principle established?

A. Wagon Mound Case

B. Salomon v Salomon

C. Rayfield v Hands

D. Carlill v Carbolic Smoke Ball & Co

(2 marks)

1.2 Which of the following statements is true?

A. The benefit of being a sole trader is that you have no personal liability for the debts of your business.

B. For organisations that have limited company status, ownership and control are legally separate.

C. Ordinary partnerships offer the same benefits as limited companies, but are usually formed by professionals such as doctors and solicitors.

D. Limited company status means that a company is only allowed to trade up to a predetermined turnover level in any one year. (2 marks)

1.3 Which one of the following statements about traditional (unlimited) partnerships is incorrect?

A. A partnership has no existence distinct from the partners.

B. A partnership must have a written partnership agreement.

C. A partnership is subject to the Partnership Act.

D. Each partner is an agent of the firm.

(2 marks)

1.4 Which of the following is an employee entitled to receive where a contract of employment is for six (6) months or more?

A. A written contract

B. A written statement of particulars

C. A written works handbook

D. A written personnel manual

1.5 The maximum number of persons who are legally allowed to operate in a partnership is….?

A. 2

B. 20

C. 50

D. There is no limit

(2 marks)

1.6 Law is in different categories, which of the following best distinguishes criminal law from civil law? (2 marks)

A. Criminal law is written whilst civil law is unwritten

B. Criminal law governs the relationship between the State and its citizens whilst civil law governs the relationship between citizens only.

C. Criminal law has punishment for the offender whilst civil law has compensation for the injured person.

D. Criminal law regulates the relationship between states whilst civil law regulates the relationship between State and its citizens.

1.7 Contracts follow certain rules before they are consummated. Which of the following agreements have, as a general rule, the intention to create legal relations?

A. Letters of intent and collective agreements

B. Commercial advertisements or public body agreements

C. Social or domestic agreements

D. Business or commercial agreements

(2 marks)

1.8 Which of the duties below is not a duty of an agent?

A. Duty to account

B. Duty to delegate

C. Duty to obey lawful instructions

D. Duty to avoid conflict of interest

1.9 Companies can either be public or private limited companies. Which of the following companies represents a set of private companies?

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

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

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

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

(2 marks)

1.10 When a company gets a loan, the lender would charge on the company's assets. Which of the following is not a feature of floating charges?

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

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

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

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

(2 marks)

[Total: 20 Marks]

SECTION B

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

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

QUESTION TWO - (COMPULSORY)

(a) In the Zambian jurisdiction, the Constitution is one of the major sources of law. Discuss any other four (4) sources of law in Zambia. (8 marks)

(b) It is always agreed that a contract can't exist without parties agreeing on the terms to be in that contract. Some terms are expressly stated, put in the contract at the time of negotiations, and become binding. From the above, explain three (3) ways in which terms of a contract may be implied in contract. (6 marks)

(c) How is consent a defence in Tort? (4 marks)

(d) State the meaning of a contract of sale (2 marks)

[Total: 20 Marks]

QUESTION THREE

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

(i) The Company Auditor (5 marks)

(ii) The Company Secretary (5 marks)

(iii) The Directors of the Company (5 marks)

(b) What is meant by causation in Tort. (5 marks)

[Total: 20 Marks]

QUESTION FOUR

John, the business man is well known for selling almost anything he gets his hands on. He has been running a chain of stores from Ndola, Chipata, Kasama and has now established the biggest shop in Lusaka. The shop in Lusaka has received a new consignment of goods which included military uniforms which could not be sold due to the existing laws in Zambia. Unknown to him, his cashier displayed the military attire for sale in his shop at Manda Hill.

On the 13 of December, 2022 Mupondo Kopala went to this shop with a view of buying the said military attire which was displayed on the second shelf. While Mupondo Kopala was admiring that attire with an intention to buy it, Lieutenant Kobby from the Zambia Army noticed that and seized all the military attire in the shop and had John arrested by the police for selling military uniform.

John's file has gone to the Director of Public Prosecution from the police for instructions with a possible criminal prosecution. One of the directors of the shops has come to you for advice on the above.

Required:

(a) With reference to the above scenario, explain to the director on whether by displaying the military attire, John was selling them. (8 marks)

(b) Assuming there was a binding contract that was entered above, explain any four (4) elements to make a contract valid. (8 marks)

(c) Explain the difference between criminal and civil law above (4 marks)

[Total: 20 Marks]

QUESTION FIVE

(a) Peter Muleza is a member of a partnership business known as "**GOODWILL**" Partnership. The partnership has been in existence for ten (10) years now and John Muleza has been contemplating withdrawing from the partnership since 2021. Last year in June, he finally managed to tender in his resignation as he retired to his farm in Mpongwe. After his retirement from the firm, the partnership entered into three (3) contracts for delivery of office equipment. On all correspondence of the partnership with the suppliers, Muleza's name was still appearing and hence he has also been sued. Muleza now approaches you for advice regarding this legal action.

Required:

(a) Advise Muleza on the likely outcome of the case. (7 marks)

(b) Explain the difference between liability arising in tort, criminal law and the law of contract. (8 marks)

(c) Describe the nature of members' voluntary winding up. (5 marks)

[Total: 20 Marks]

QUESTION SIX

The Accounting University Limited" is a limited liability company offering a variety of courses in accounting. The university has been in financial distress for some time now and that has affected its day to day operations. Several proposals have been given in terms of how to deal with the said problem, but it appears the same are not effective. Rumor has it that there is an intention to place the company under receivership or liquidation, but the reasons are not really known.

The company wants to hold an urgent meeting but they are not sure on which type of meeting to hold it though they are aware that the process of winding up is expected to last at least a year or so to complete everything.

Last night, you heard another idea that there is a possibility of selling shares that are held by the company which are ordinary and that other shareholders have redeemable shares which may help the company out of distress and you know of available people interested in shares.

Required:

(a) Explain if voluntary liquidation can apply in the above case. (8 marks)

(b) Discuss how the two (2) types of shares above (ordinary and redeemable shares) can help the company. (6 marks)

(c) Explain the three (3) types of meetings that "*The Accounting University Ltd"* can hold. (6 marks)

[Total: 20 Marks]

END OF PAPER

CA 1.4 COMMERCIAL AND CORPORATE LAW SUGGESTED SOLUTIONS

SOLUTION ONE

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

SOLUTION TWO

(a) (i) **Judicial Precedent**

Under the doctrine of judicial precedent (*stare decisis*) earlier decisions of higher courts Supreme Court, Constitutional Court, Court of Appeals and High Court) are binding on lower courts dealing with a similar matter at a later date. When a dispute arises between two parties, parties or lawyers (if represented) on both sides will usually argue the matter in court before a judge. At the end of the arguments, the judge makes a decision usually resolving the matter in favour of the successful party. Before reaching his decision, the judge usually reviews all existing relevant law and then formulates and applies a legal principle to the facts before him. The principle laid down in the case may form a binding or persuasive precedent to be followed by courts in later disputes involving similar issues. This is how common law is created.

(ii) **Common law and Equity**

Is another source of law arising from the Common Law of England. It arises from what is viewed as fairness by the judge. The system of equity, developed and administered by the Court of Chancery, was not a complete alternative to the common law. It was a method of adding to and improving on the common law; it provided a gloss on the law.

(iii) **Legislation**

Legislation (or statute law) refers to law passed by Parliament in the form of statutesor Acts of Parliament. The bulk of Zambian law is statutory. Legislation is superior to case la, though judges have to interpret legislation

(iv) **Customary law**

Zambia is inhabited mainly by various ethnic groups. Each of these tribes has its own customs, traditions and political system. These customs and traditions form the customary law of these tribes. The Local Courts Act Chapter 29 of the Laws of establishes the Local Courts which administer customary law. Customary law is very important in areas such as marriage, succession and land law.

(b) Implied terms, however, are not actually stated or expressed included in the contract, but are introduced into the contract by implication. In other words the exact meaning and thus the terms of the contract are inferred from its context. Implied terms can be divided into three types.

(i) **Terms implied by statute**

In this instance a particular piece of legislation states that certain terms have to be taken as constituting part of an agreement, even where the contractual agreement between the parties be itself silent as to that particular provision. Some statutes provide that particular terms are to apply unless the contract in question specifically states otherwise. ***Liverpool City Council v Irwin (1977),*** it was held that where parts of a building have been let to different tenants and where rights of access over the parts of the building retained by the landlord, e.g. the stairs have been granted to these tenants, then a term could be implied that the landlord keep these parts reasonably safe.

(ii) **Terms implied by custom or usage**

An agreement may be subject to terms that are customarily found in such contracts within a particular market, trade or locality. Once again this is the case even where it is not actually specified by the parties. For example, in ***Hutton v Warren (1836),*** it was held that customary usage permitted a farm tenant to claim an allowance for seed and labor on quitting his tenancy.

(iii) **Terms implied by the courts**

Generally it is a matter for the parties concerned to decide the terms of contract, but on occasion the court will presume that the parties intended to include a term which is not expressly stated. They will do so where it is necessary to give business efficacy to the contract. Whether a term may be implied can be decided on the basis of the officious bystander test. Imagine two parties, A and B, negotiating a contract. A third party, C, interrupts to suggest a particular provision. A and B reply that that particular term is understood. In just such a way, the court will decide that a term should be implied into a contract. In ***The Moorcock (1889),*** the appellants, owners of a wharf, contracted with the respondents to permit them to discharge their ship at the wharf. It was apparent to both parties that when the tide was out the ship would rest on the riverbed. When the tide was out, the ship sustained damage by settling on a ridge. It was held that there was an implied warranty in the contract that the place of anchorage should be safe for the ship. As a consequence, the ship owner was entitled to damages for breach of that term.

(c) **Consent:-** Also known as *volenti non fit injuria* is a defence in tort which states that the injured party would have expressly or impliedly agreed to run the risk of injury from his conduct. Thus the Defendant would argue that he is not liable because the plaintiff volunteered or freely consented to be injured, e.g. in sports (Smith v Baker and Sons (1891).

(d) A contract of sale is defined as a sale where ownership of the goods is to be transferred immediately from the seller to the buyer.

SOLUTION THREE

(a) **Auditor**-is a person who counter checks the accuracy of the company's financial records to confirm confidence in the accounting information. This is done so that users of accounting information can make informed decisions based on the given information. An auditor can either be internal or external.

Secretary-is the administrative head of a company who ensures that all the records are in order, the company complies with all company regulations and may also represent the company in case of any legal suits. Prepares minutes, sends notices for meetings, keeps business books, circulates the agenda, etc. A secretary can either be a company or an individual person.

Director-is a person who takes care of the day to day running of the company. A director is a member of the board of directors and acts as the mind of the company. A director manages the business for the benefit of shareholders and his own benefits.

(b) **Causation:-** Also known as 'But for test' means that for one to be held liable in Tort, the person must have been the one who caused the injury. If the damage was too remote or was caused by something else (breaking the chain of causation), then he/she would escape liability for the injury suffered by the plaintiff.

SOLUTION FOUR

(a) ***An offer*** is a proposal made on certain terms by the offeror together with a promise to be bound by that proposal if the offeree accepts the terms. An offer may be made expressly, or implied by conduct.

On the other hand, ***an invitation to treat*** is where a person holds himself out as ready to receive offers, which he may then either accept or reject. Examples of invitations to treat include the display of goods with a price tag in a shop window or on a supermarket shelf. An invitation to treat is not an offer to sell but an invitation for customers to make an offer to buy.
In the case of John's display of the military attire, it was an invitation to treat and not an offer. Mupondo Kopala was to pick up the attire and offer to buy at the counter where an offer would have been made. His picking the attire did not amount to the shop making an offer to him, but merely inviting him to make an offer. In this case the offer was to be made by Mupondo Kopala at the counter on presentation.
Therefore, there was no offer that existed only an invitation to treat by way of display of goods in the shop. The offer was to be made at the counter which was not the case.

(b) The 4 major elements that validates a contract are:

Offer: An offer is a proposal made on certain terms by the offeror together with a promise to be bound by that proposal if the offeree accepts the terms. An offer may be made expressly, or implied by conduct. An offer must be distinguished from an invitation to treat which is where a person holds himself out as ready to receive offers, which he may then either accept or reject.

Acceptance: Acceptance can be defined as a positive act by a person to whom an offer has been made which, if unconditional, brings a binding contract into effect. The contract comes into effect once the offeree has accepted the terms presented to them. This is the point of no return. After acceptance the offeror cannot withdraw the offer and both parties will be bound by the terms that they have agreed. Failure to abide by the contract will entitle the other party to claim for damages or terminate a contract depending on what has been breached.

Consideration: Consideration has been defined as a valuable consideration in the sense of the law may consist either in some right, interest, profit or benefit accruing to one party, or some forbearance, detriment, loss or responsibility given, suffered or undertaken by the other. This consideration just needs it to be sufficient and not adequate.

Intention to create legal relations: Intention to create legal relation is the other element that is needed to validate a contract. After all, if you invite a friend round for a social evening at your house, you would not expect legal action to follow if the occasion has to be cancelled.

For the purpose of establishing the intention of the parties, agreements are divided into two categories:

1 Business/commercial agreements -where there is an intention to create legal relations

2 Social/domestic agreements-Where there is no intention to create legal relations as a general rule.

(c) In this case, John and or the company can be dealt with in both a criminal or a civil manner. Thus:

Criminal law governs the relationship that subsist between the State and its citizens. A citizen who commits a criminal act offends the State, representing the whole of society. The law is strictly written under **Penal Statutes**, for example the Penal Code Chapter 87 of the Laws of Zambia. Examples of acts that are punishable under the criminal law are treason, unlawful wounding, theft, rape or murder.

Civil law regulates the interaction between citizens in society only. Examples of acts which are actionable under the civil law are breach of contract, defamation, malicious prosecution and being a nuisance to others. Branches of civil law include tort, contract, company law, commercial law and property law. Therefore, it will be difficult to prosecute John or his company based on the case of fisher v bell as an invitation to treat does not amount to an offer.

SOLUTION FIVE

(a) A partnership is defined by the PARTNERSHIP ACT 1980 as 'the relation which subsists between a person carrying on a business in common with a view to profit'. A partner who retires does not cease to be liable for partnership debt incurred before his retirement. These may include debts arising after his retirement from transactions during the period when he was a partner. A retired partner may be discharged from liability for debts incurred while she was a partner if the debts are later discharged by the firm, or if the creditors agree to release him by novation. A retired partner may be liable on contracts made after his retirement if he continues to have his name on it, he becomes liable as a partner by estopel. Therefore, Muleza will be liable for the partnership debt [***Tower Cabinet Co. Ltd v Ingram (1949***)].

(b) **Crime** is an offence prohibited by law. The state prosecutes the offender before a criminal court with a view (if he is convicted on proof of guilt beyond reasonable doubt) to punishment by fine or imprisonment. A **tort** is a civil wrong and the person wronged sues in a civil court for compensation (or injunction against repletion). Breach of contract and of trust is civil wrongs. It must be shown that the defendant was subject to the obligations. In 'tort' no previous transaction or relationship need exist: the parties may be complete strangers as when a motorist knocks down a pedestrian in the street. The claim in tort is based on the general law of duties and rights.

(c) A **members' voluntary winding up**, the directors have to make the declaration of solvency confirming that the company will be able to pay all its debts. Within 24 hours of the passing of the resolution to wind up the company, the shareholders must convene a meeting with the creditors. At this meeting, either the shareholders of the creditors can appoint the liquidator.

SOLUTION SIX

(a) Creditors or Compulsory Liquidation

The type of liquidation that seems to fall under the given facts is liquidation by a Court Order. The Accounting University Limited can wind up compulsorily through its creditors. Creditors can compulsorily wind up the Company by using Compulsory liquidation of a company which requires obtaining a court order. The application may be brought by the company or a majority of its directors, or by the Registrar of Companies, or by a creditor. Applications by creditors are by far the most important and common. This process starts with an application to the court alleging that one or more of the required grounds exist, e.g. failure to pay debts as shown in this case. Members voluntary liquidation cannot apply due to the fact that the company is not solvent.

The law under the Act provides among other ground that the Court may order the winding-up of a company on the petition of a person other than the Official Receiver if—

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

(ii) **the company was formed for an unlawful purpose;**

(b) (i) ***Ordinary Shares*** are the most common class of shares. They are also the traditional form of shares. The holder of this type of shares is entitled to information, to be notified about meetings of a company, and to attend such meetings and participate in deliberations therein. The number of shares held could determine one's voting power. Ordinary shareholders have a right to a dividend and on a solvent winding-up; to participate in the surplus capital remaining after the company has discharged all its liabilities. Usually therefore, the ordinary share is the one that carries the most value.

These shares can be sold to interested members so that the company's liquidity is beefed up to normality. Companies use such sales to contribute to the stamina of the company.

(b) (ii) ***Redeemable shares*** are shares that can be bought back by the company at some point in the future. The redemption date can either be fixed in advance (e.g. 3 years from the date the share is issued) or decided at the company's discretion. The redemption price is usually the same as the issue price, but not necessarily. For example, shares given to employees are often redeemable, so that the company can get its shares back if the employee leaves. However, the ability to redeem shares is limited and is subject to specific statutory requirements.

These shares are helpful because at the time the company is going through financial distress, the same can be redeemed from the members for purposes of helping the company's financial status.

(c) the accounting University Limited can hold the following meetings:-

(i) **An annual general meeting** is an ordinary meeting, which every company is required to hold within three months after its financial year. In other words, it is a scheduled meeting. If a company fails to hold this meeting within 3 months, any shareholder can apply to the Registrar of Companies for the purpose of causing the meeting to be convened. However, the law entitles a private company to dispense with the holding of an annual general meeting in any financial year other than the first financial year.

(ii) **An extraordinary general meeting** is not a scheduled or planned meeting as the case is with an annual general meeting. An extraordinary general meeting is intended to transact specific business, which cannot wait until the time for an annual general meeting. An extraordinary general meeting is defined as a general meeting of the company, which is not an annual general meeting.

(iii) **Class Meetings** are meetings of a class of shareholders. These meetings are restricted to members of that class to consider specific class rights, i.e. not open to every member of the company. The law provides that, "unless the articles provide otherwise, a meeting of members of a particular class may be convened.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CERTIFICATE IN ACCOUNTANCY

CA 1.5: MANAGEMENT THEORY AND PRACTICE

FRIDAY 16 JUNE 2023

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

INSTRUCTIONS TO CANDIDATES

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

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

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

   Section B: One (1) compulsory scenario question, plus Four (4) scenario questions. Attempt any Three (3) questions.

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

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

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

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

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

8. Present legible and tidy work.

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

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

SECTION A

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

<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 From your understanding of this course, which of the following will help motivate employees?

A. Compromise on poor performance

B. Ask for performance and set standards

C. Use positive reinforcement, and generalize it

D. Use the same methods of reinforcement for everyone

(2 marks)

1.2. What do you understand by the term 'An independent Director'?

A. One who did not attend a school supported by the company.

B. One does not have outside relationships with other Directors.

C. One who does not have any other relationships with the company other than his or Her Directorship.

D. Did not attend a school supported by the company but works for the company as a Director.

(2 marks)

1.3. The process or activity of optimally utilizing human resources to achieve predetermined goals and objectives in the most efficient and effective way possible is:

A. Directing

B. Controlling

C. Planning

D. Organizing

(2 marks)

1.4. Which style of management would be most effective in an emergency situation?

A. Autocratic

B. Consultative

C. Delegating

D. Participating

(2 marks)

1.5. **Which of the following types of power shows Criticism** or lack of recognition from their

leader as unpleasant or punishing?

A. Legitimate power

B. Coercive power

C. Referent power

D. Reward Power

(2 marks)

1.6. Which theory of management describes the boss who believes people are lazy, and need constant supervision?

A. Theory x

B. Theory y

C. Theory z

D. Democratic theory

(2 marks)

1.7. Among the following managerial function which one defines the boundaries of authority and responsibility within a department?

A. Planning
B. Organizing
C. Directing
D. Controlling

(2 marks)

1.8. The right or privilege to direct or request a behavior or action, along with the right to discipline is:

A. Control
B. Power
C. Authority
D. Leadership (2 marks)

1.9. One of the abilities a manager needs to be successful is the ability to match leadership style to the work situation, which is necessary because of three concerns. These are:

A. Interpersonal relationships, worker/task maturity, orders & directives.
B. Manager accessibility, training, task.
C. Task, interpersonal relationships, worker/task maturity.
D. Workers, communication style, social activities.

(2 marks)

1.10. In McGregor's X and Y Theory of leadership, the "Y" manager would:

A. Allow employees to become part of the decision-making process.
B. Issues direct, clears orders and expects them to be accepted & carried out.
C. Leave little doubt who is the boss and who the subordinate is.
D. Does not allow employees to become part of decision-making process.

(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).

QUESTION TWO - (COMPULSORY)

Since Edith's hire, employee productivity and motivation has decreased. Staff used to enjoy coming to work, talking with one another, and planning programs and services for the community together. Now they come to work because "we need a paycheck," and they accomplish their tasks because "Edith told me to do so." There is no enthusiasm for the mission of the organization and the vision for the new work that Edith and the directors created in a strategic planning meeting. A couple of times, when Edith passed employee cubicles, she heard comments like, "She works us all like we don't have a personal life," "She's so impersonable," "I miss just chatting with people," and "Mwila was never like this. She always made time to talk to us."

Just last week, Edith had a staff meeting, and the majority of staff sauntered in late. Throughout the meeting, they gave her blank stares, and, as soon as the meeting was over, they quickly left. Edith is tired of the staff attitudes and behaviours. "The culture of this organization can't operate the way it used to. I am determined to change it," she thinks to herself."

Required:

(a) Define organization culture and identify the three (3) significant factors of leadership, which can influence the culture of an organization. (10 marks)

(b) "Every leader is a manager but not every manager is a leader……" Explain the difference between Management and a Leadership. (4 marks)

(c) In an early study using boys' clubs, Lewin, Lippitt and White identified three (3) styles of leadership. Define the following leadership styles:

(i) Authoritarian leadership (2 marks)
(ii) Democratic leadership (2 marks)
(iii) Laissez-faire leadership (2 marks)

[Total 20 Marks]

QUESTION THREE

(a) Managers should be encouraged to be aware of certain factors that may influence their ethical courses of actions when under pressure.

Required:

Explain three (3) factors that may influence managerial ethics in managers when they are under pressure. (6 marks)

(b) Define four (4) roles of boards of directors in organizations. (8 marks)

(c) Lack of proper planning other than poor management has been mostly given as the main reason for failure to reach desired profitability in organizations.

Required:

Give three (3) factors that explain the important relationship of planning to other management functions within an organization. (6 marks)

[Total: 20 Marks]

QUESTION FOUR

Five (5) former university colleagues now in formal employment pursuing various careers in public and private sectors have formed a business company, Thorncraft Home Equipment limited that is actually performing well in the Zambian manufacturing environment. Their participation in this company is limited to being shareholders and members of the board of directors of seven of which the other two are the Chief Executive officer and an independent member who is a lawyer.

Required:

(a) Explain any six (6) elements of corporate governance that are expected from the board, management and staff of Thorn-craft Home Equipment Limited. (12 marks)

(b) Point out five (5) moral duties required of the members of the board as suggested in the King report of 1994. (5 marks)

(c) State any three (3) aspects of integrity that are expected of the board and management of this company. (3 marks)

[Total: 20 Marks]

QUESTION FIVE

(a) The main purpose of a marketing plan is to integrate marketing activities.

Required:

List any five (5) benefits of a marketing planning. (5 marks)

(b) Define the micro environment and give two (2) examples of micro environment elements. (3 marks)

(c) Selection of suitable candidates for the jobs is important for employees as well as the organization and its prosperity.

Required:

Define how the following may help an organization achieve its goals and objectives.

(i) Job analysis (4 marks)

(ii) Job description (4 marks)

(iii) Job specification (4 marks)

[Total: 20 Marks]

QUESTION SIX

Organizations operate in an external and internal environment which has many factors that influence their day to day operations.

Required:

(a) List Six (6) types of organizations' stakeholders. (12 marks)

(b) Analyze SWOT analysis (8 marks)

[Total: 20 Marks]

END OF PAPER

CA 1.5: MANAGEMENT THEORY AND PRACTICESUGGESTED SOLUTIONS

SOLUTION ONE

1.1 B

1.2 C

1.3 D

1.4 A

1.5 A

1.6 A

1.7 B

1.8 C

1.9 C

1.10 A

SOLUTION TWO

(a) Organisational culture are a set of norms and beliefs agreed upon in an organization. It can also define as a collective programming of the mind which distinguishes the members of one group from another.

Factors of leadership

- The first of those tools will be the vision of the leader. If the leader can foresee the upcoming aspects, he can take measures to control the outcome.
- The second one will be values and views of a leader. According to vision of the leadership, the performance of the company can be altered significantly.
- The last key tool to alter the organizational culture will be purpose of the leader.

(b)

- Management is about coping with the complexity. Its functions are to do with logic, structures, analysis and control.
- Leadership is about coping with change. Its activities include creating a sense of direction, communicating strategy, and energizing, inspiring and motivating others to translate vision into action.

(c)

- Authoritarian leadership: gives orders, overseeing work activities and giving out criticism and praise on a whim. Usually hostile and discontent.
- Democratic leadership: shows concerns for team member welfare, participating in group activities, making suggestions as to what should be done, but allowing team members to make decisions. Communicates and motivates the team.
- Laissez-faire leadership: tending to be ‘stand-offish’, does not get involved in team activities or welfare, and more or less letting the group run itself.

SOLUTION THREE

(a) The following are the three (3) factors that may affect managerial ethics when managers are under pressure:

(i) Manager as a person- personal experiences such as family religion, personal standards and needs.

(ii) The employing organization- policies, code of conduct, supervisor and peer behavior.

(iii) The external environment- government regulations, norms and value of society and ethical climate of industry.

(b) The following are the roles of board of directors in an organization:

(i) To make sure an organization acts in the interest of the owners

(ii) Endorsing or confirming the strategic initiatives of top management-

(iii) Exercise control and ensure that the strategic management of an enterprise is successful

(iv) Encourage managerial accountability towards financial performance and social responsibility

(c) Three (3) factors that explain the important relationship of planning to other management functions:

(i) it initiates the management process.

(ii) identifies the important objectives and what must be done to achieve them.

(iii) sets the stage for managerial efforts in organizing- through the allocation of resources to accomplish tasks.

(iv) Leading- through guidance of human resource to ensure high levels of productivity and controlling- through monitoring and taking necessary correction measures.

SOLUTION FOUR

(a) The elements of corporate governance include the following:

(i) To ensure adherence to and satisfaction of the strategic objectives of the organisation.

(ii) To promote integrity that is straightforward dealing and completeness

(iii) To provide the operation of an adequate and appropriate system of control.

(iv) To provide an overall performance that is enhanced by good supervision and management within set best practice guidelines.

(v) To provide a framework for an organisation to pursue its strategy in an ethical and effective way and offers safeguard s against misuse of resources.

(vi) To willingly apply the spirit as well as the letter of the law.

(vii) To attract new investment into companies

(viii) To be accountable not only the shareholders but also other stakeholders.

(ix) To underpin capital market confidence in companies and in the government/regulators/tax authorities that administer them.

(x) To maintain independence of those who scrutinize the behaviour of the organisation and senior executive managers. Independence is even more important for non-executive directors, and both internal and external auditors.

(xi) To provide accurate and timely reporting of trustworthy and or independent financial and operational data to both the management and owners/members of the organisation.

(xii) To encourage more proactive involvement of owners/members in the effective management of the organisation.

(b) The five moral duties of board members as suggested by the Kings report are:

(i) Conscience – intellectual honesty and avoid conflict of interest

(ii) Care – directors exercising care in the company's affairs

(iii) Competence – directors having the knowledge and skill required

(iv) Commitment – directors should be diligent

(v) Courage – directors should have the courage to take decisions regardless of the risks.

(c) The aspect of integrity required of the board and management are:

(i) High moral character

(ii) Straightforward dealing in relationship

(iii) Personal honesty

SOLUTION FIVE

(a) The following are the benefits of marketing planning:

(i) Greater understanding of customers

(ii) Improved decisions

(iii) Improved motivation due to involvement of all

(iv) Less risks

(v) Better coordination

(vi) Controls are improved

(b) Micro environment comprises of the actors close to the company that affect its ability to serve its customers.

Examples: Suppliers, competitors, marketing intermediaries, customer markets and publics.

(c) The following are the definitions:

(i) Job analysis: the process that will help gather information about tasks, duties behaviors etc. so that it becomes easy to employ capable men and women who are have qualities that are appropriate to the job and will therefore perform with confidence.

(ii) Job description: it helps gather the information about responsibilities, relationships and supervision required to help the employee work, connect and coordinate in order to achieve the best results as required and planned.

(iii) Job specification: consist of identification of knowledge, ability, skill and characteristics like personality so that the employee is placed where they are capable of performing appropriately and be able to actualize their potentials willingly. This will bring about enthusiasm and consequently high productivity.

SOLUTION SIX

(a) Classify TEN stakeholder types.

- interest groups/pressure groups
- Employees
- Investors
- Shareholders
- Management
- Lenders
- Prospective customers
- Government
- Communities
- Media
- Creditors
- Bankers
- Owners
- Professional associations
- Labor unions Suppliers

(b) The Strength of a business i.e. the areas of the Organisation that should be exploited by suitable strategies

- The Weaknesses of a business i.e. area of the organisations which need strategies to improve them
- The Opportunities that the environment may provide – the external appraisal involving identifying opportunities that can be exploited by the organization's strength
- The Threats that the environment may provide. Threats that might affect the Organisation or its micro environment such as competition
- Strength and weaknesses analysis is intended to shape the organization's approach to the external world.
- A SWOT analysis brings together an organization's internal strength and weaknesses as well as external opportunities and threats so that strategies may be developed and assessed

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA CERTIFICATE IN ACCOUNTANCY

CA 1.6: BUSINESS COMMUNICATION

WEDNESDAY 14 JUNE 2023

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

INSTRUCTIONS TO CANDIDATES

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

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

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

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

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

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

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

8. Present legible and tidy work.

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

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

SECTION A – (Compulsory)

Attempt all ten (10) multiple choice questions

<u>QUESTION ONE</u>

Each of the following 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 A system report that generates an anti-virus program that repair system damage caused by malicious software is:

A. Detective
B. Corrective
C. Preventive
D. Adaptive

(2 marks)

1.2 Which of the following is a fundamental component of a decision support system (DSS)?

A. Menu driven user-friendly interface
B. Office automation system
C. Knowledge work system
D. Dialogue generation and management system (DGMS)

(2 marks)

1.3 Which menu in MS-Word would you select to start mail merge?

A. Home
B. Review
C. References
D. Mailings

(2 marks)

1.4 What software controls access to a Database?

A. An operating system
B. An enterprise resource planning system
C. A database management system
D. A data warehouse

(2 marks)

1.5 The most common type of computer is ________

A. Supercomputers

B. Minicomputers

C. Personal computers

D. Mainframes

(2 marks)

1.6 Which of the following is **NOT** part of the channels of communication in an organisation?

A. Diagonal and upward communication
B. Upward and down ward communication
C. Down ward and informal communication
D. Horizontal and vertical communication

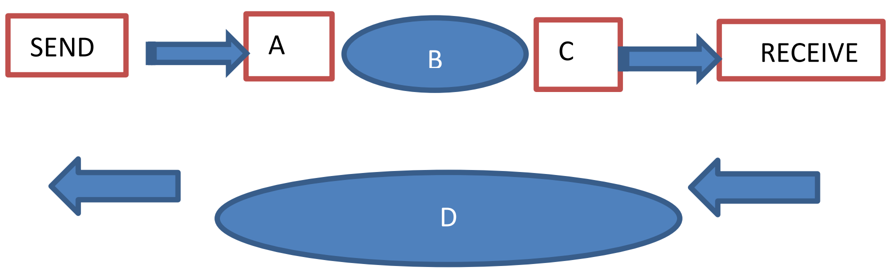
(2 marks)

1.7 What is an appendix?

A. Extra material placed at the back of a report to avoid distraction in the flow of information of the main body.
B. Extra material which shows where cited Authors are found.
C. Information that provides conclusions and recommendation of a report.
D. Extra material that shows a list of people who assisted in the preparation of a particular report.

(2 marks)

1.8 In the diagram below, which part represents **decoding** in the communication cycle?



(2 marks)

1.9 Which of the following diagrams would be ideal for showing relative sizes of component?

elements of a total value or amount?

A. Line graph

B. Bar chart

C. Pie chart

D. Gantt chart

(2 marks)

1.10 Which of the following would NOT be necessary in Curriculum Vitae?

A. Personal attributes

B. Profile

C. Interests

D. Academic background

(2 marks)

[Total: 20 Marks]

SECTION B

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

Attempt any THREE (3) questions from the remaining FOUR (4).

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

Management has observed that for the past one month, you have been reporting late for work. Your supervisor has had enough of your excuses despite several verbal warnings that were given to you. A decision was made to write to you on this matter. The content of the letter that was received is presented below:

23rd January, 2023

Mr. Kabika Kasoka

Kapanza Green Solutions

P.O Box 2060

Lusaka

Dear Mr. Kasoka

RE: EXCULPATORY LETTER

With reference to the above, management would like to know why you have continued to report late for work.

You are therefore required to write an exculpatory letter to explain why you have failed to change for the better despite receiving several verbal warnings and why disciplinary action should not be taken against you.

This letter should be submitted to the undersigned before close of business today.

Yours Sincerely

N. Nkwashi

Ms. Nasanta Nkwashi

Finance Manager

Required:

(a) Write a letter responding to the mail above. (14 marks)

(b) Explain any three (3) reasons why a letter would be appropriate in this situation as opposed to face-to-face communication. (6 marks)

[Total: 20 Marks]

QUESTION THREE

(a) As an entrepreneur, your business is growing rapidly, and you are considering getting an advanced accounting software that would help maintain all the financial tasks and enhance other operations with a click of a button. Acquiring a robust accounting system would be a right solution for the business.

Required:

State five (5) reasons you would opt for accounting software over traditional tools like spread-sheets? (10 marks)

(b) Passwords provide the first line of defence against unauthorized access to the computer and personal information. The stronger the password, the more protected the computer will be from hackers and malicious software.

Required:

Explain any five (5) useful tips that you would consider when creating a strong password and keeping the information secure. (10 marks)

[Total: 20 Marks]

QUESTION FOUR

Your website could be among the greatest assets in your business and it can similarly be a key

vulnerability. All the effort you invested to generate traffic and promote your brand online could

end up in flames if you do not know the different network security threats and their solutions.

Required:

(a) Identify any five (5) common network security problems with a solution for it.

(10 marks)

(b) Explain how you would highlight the text you wish to format in the profile using the mouse and keyboard. (10 marks)

[Total: 20 Marks]

QUESTION FIVE

A meeting is the gathering of two or more people to discuss business. However, meetings may not always be beneficial to the organization. As chairperson, it has come to your attention that some of the committee members are not aware of the meeting documents that are prepared before, during and after a meeting is held.

Required:

(a) Explain the uses of the following meeting documents to your junior members of staff.

(i) Notice (2 marks)
(ii) Chairperson's agenda (2 marks)
(iii) Minutes (2 marks)
(iv) Agenda (2 marks)

(b) State any four (4) reasons why holding meetings may not be beneficial to an organization. (8 marks)

(c) Outline any four (4) elements of a notice. (4 marks)

[Total: 20 Marks]

QUESTION SIX

Mr. Kabika is an Assistant Accountant of the southern region of the organization that he works for. He is attached to a five (5) year planned project and has just been transferred to another region on promotion. Upon arrival, he noticed a number of mistakes in the way subordinates Communicate which courses unnecessary communication break down.

Required:

(a) Explain any five (5) common barriers to effective communication that Mr. Kabika has observed. (10 marks)

(b) State any three (3) reasons why feedback is essential in a business organization. (6 marks)

(c) Highlight any four (4) factors that should be considered when selecting a channel to avoid communication breakdown (4 marks)

[Total 20 Marks]

END OF PAPER

CA1.6 BUSINESS COMMUNICATION SUGGESTED SOLUTIONS

SOLUTION ONE

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

SOLUTION TWO

A. Letter

Kapanza Green Solutions

P.O Box 2060

Lusaka.

Any date during examination time

The Finance Manager

Kapanza Green Solutions.

P.O Box 2060

LUSAKA.

Dear Ms. Nkwashi,

<u>RE: EXPLANATION ABOUT MY LATE REPORTING FOR WORK</u>

I write this letter in response to your letter dated 23rd January 2023 concerning my continued late reporting for work. First of all, I humbly apologize for my continued bad behavior as it has greatly affected my work output and stolen company time despite the several warnings I have been saved with.

The reason for my late coming for work has been due to family issues. For eight months now, my father has been suffering from colon cancer and is admitted to the Cancer Diseases Hospital in Lusaka (please see my father's medical records hereto attached). Before reporting to work and after work, I have had to go and visit him to take him medication and food since all my relatives do not stay within Lusaka making me the only family member closest to him.

I wish to state that I know and admit that my family problems should not affect the delivery of my duties at work and so I promise that I will not let this happen again as I will find a way to make sure that I report for work early. I appreciate that you have not taken any disciplinary action against me and I assure you that I will change my behavior for the better going forward.

Yours Sincerely,

K. Kasoka

Kabika Kasoka (Mr)

Assistant Accountant

B. Why use a letter

(i) It is more formal
(ii) It keeps permanent record
(iii) Can help avoid confrontation in case the parties are charged
(iv) To avoid diseases such as Covid-19
(v) To maintain confidentiality on personal staff issues as a way of protecting and respecting staff.

SOLUTION THREE

(a)

(i) **Business operations** – Accounting software helps manage all accounts related processes like inventory management, supports sales process and invoicing

(ii) **Enhanced accuracy** – It reduces human intervention while eliminating data entry errors, thus improving efficiency and making business tax compliant

(iii) **Better decision making** – It provides in-depth business insights, automates and streamline processes, maintains stable cash flow

(iv) **Advanced Monitoring** – Helps monitor all accounting entities, track business inventory, support sales and purchasing processes and enhance smooth business operations

(v) **Improves inventory management** - From purchase orders to sales, business requires optimum inventory management to ensure smooth operations and help in tracking stock changes

(vi) Changes made in one module are immediately in other related modules.

(b)

When creating a strong password & keeping the information secure

(i) Use a unique password for each of your important accounts

(ii) Passwords should consist of lowercase, uppercase, letters, numbers & symbols.

(iii) A long password offers better protection

(iv) Don't use personal information e.g name, date of birth, child's name, etc

(v) Create a password that you won't easily forget

SOLUTION FOUR

(a) Five (5) common network security problems

(i) Interception of data being transmitted. This can be solved by encrypting data before transmitting it

(ii) Denial of service attack (install firewalls)

(iii) Malware attack – install anti-virus software

(iv) Phishing – don't give out sensitive information to unknown people

(v) Ransomware – don't install software from intrusted sources

(b)

EDIT: CUT, COPY AND PASTE

(i) To highlight text using the mouse: position mouse pointer at the beginning of the first word then hold down the left mouse button and move pointer across the text you wish to select. Then release mouse button, portion of text will now be highlighted.

(ii) To highlight text using keyboard: move cursor to the beginning of area to be selected. Hold down the shift key and while holding it down, use navigation keys to highlight required area.

(iii) You can also double click the word to select it

(iv) Move the mouse into the margin, the point will change into an arrow and tilt towards the line, click once to select the line, double click to select the whole paragraph and click 3 times to select the entire document

SOLUTION FIVE

(a)

(i) **Meeting notice** is a document used to announce a meeting to the members. It is used to make details about a meeting known
(ii) **Chairperson's agenda** is a list of items to be discussed in a meeting specially designed to be used by the chairperson of a meeting. It gives guidance to the chairperson giving hints on time, items to remember and officers to use during a meeting.
(iii) **Meeting minutes** is a written record of the on-goings of a meeting. It is read to remind members about what was agreed in a meeting.
(iv) **Agenda** is a list of items to be discussed in a meeting. It is also used to assist members tom prepare for a meeting in advance.

(b)

(i) Meetings are costly
(ii) Can be time consuming
(iii) Conflicts may arise
(iv) Members may come unprepared
(v) Loud members may force unpopular ideas on quieter members.
(vi) Members may fail to agree on certain resolutions causing unnecessary delay to implement on in some cases the secretary may fail to capture some important issues that are tabled due to disruptions during meetings.

(c)

(i) Date and day of meeting
(ii) Time of meeting
(iii) Type of meeting
(iv) Venue of meeting
(v) Date of notice
(vi) The target audience.

SOLUTION SIX

(a)

(i) Noise
(ii) information overload
(iii) Sadness Emotional stress
(iv) Bad medium choice
(v) Deafness
(vi) Hunger
(vii) Anger
(viii) Daydreaming
(ix) Language
(x) Using wrong medium of communication.

(b)

(i) It enables the sender to know that the message reached the receiver
(ii) To get an immediate clarification on the issue at hand
(iii) To confirm if the matter has been understood
(iv) To help the parties know the next course of action
(v) It plays an important role of completing the communication cycle.
(vi) It helps to build relationships as one is able to share thoughts on something.
(vii) It paves way for new ideas.
(viii) Bring an element of courtesy and appreciation by the recipient of the message.

(c)

(i) Speed of the delivery or urgency of the message
(ii) Time of the day
(iii) Confidentiality of the message
(iv) Cost involved in sending using the channel
(v) Reliability of the channel
(vi) Circumstances of the recipient / target audience.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ZAMBIA APPLICATION ADVANCED DIPLOMA IN IN ACCOUNTANCY

CA 2.1: FINANCIAL REPORTING

MONDAY 12 JUNE 2023

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

INSTRUCTIONS TO CANDIDATES

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

2. This paper is divided into TWO 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>

(a) The following financial statements relate to Pelican Ltd and Swan Ltd:

Extract of Statement of Profit or Loss for the year ended 31 December 2021

	Pelican Ltd K'000	Swan Ltd K'000
Profit before tax	15,400	8,900
Tax	(5,600)	(4,850)
Profit for the year	**9,800**	**4,050**

Statement of Financial Position as at 31 December 2021

Pelican Ltd K'000	**Swan Ltd K'000**	
Assets:		
Non-current assets:		
Property, plant and equipment	122,500	75,000
Investment in Swan Ltd	58,000	
180,500	75,000	
Current assets (including loan advanced to Swan Ltd)	69,500	44,900
Total assets	**250,000**	**119,900**
Equity and liabilities Equity:		
Ordinary share capital (issued @ K0.50)	50,000	20,000
10% Preference share capital	5,300	2,500
Retained earnings	89,700	46,400
Other reserves	11,000	1,000
156,000	69,900	
Non-current liabilities	35,000	14,000
Current liabilities (including loan from Pelican Ltd)	59,000	36,000
Total equity and liabilities	**250,000**	**119,900**

Additional information:

(i) Pelican Ltd acquired 30 million ordinary shares of Swan Ltd on 1 January 2020 when the carrying value of Swan Ltd's share capital (i.e. including preference share capital) plus reserves stood at K58 million. Swan Ltd has neither issued any share capital nor seen any change in its other reserves since the acquisition of shareholdings by Pelican Ltd. The recorded investment includes K1.5 million due diligence costs incurred by Pelican Ltd to facilitate its acquisition of Swan Ltd. Pelican Ltd has no interest in Swan Ltd's issued preference shares.

(ii) A fair value exercise at the time of Swan Ltd's acquisition revealed the following matters:

- A piece of equipment with an actual carrying amount of K10 million had an assessed fair value of K16 million. The estimated remaining useful economic life of this equipment at acquisition was six (6) years.
- An in-process research and development project existed at acquisition that met the recognition criteria of IAS 38 Intangible Assets. At that date, the fair value of the project was K5 million. The project started to generate economic benefits a year ago and is expected to contribute to the entity over a further four years.
- The above adjustments necessitated deferred tax provision of K1 million at acquisition. By 31 December 2020, the provision required had reduced to K0.9 million, and by 31 December 2021 had decreased further to K0.7 million. Swan Ltd has not yet incorporated the above fair value adjustments into its own financial statements. Depreciation and amortization are charged to cost of sales.

(iii) During the year, Pelican Ltd sold goods worth K25 million to Swan Ltd and made a mark-up of one-third in arriving at the selling price. At 31 December 2021, inventories of Swan Ltd included K4.8 million in respect of the goods supplied by Pelican Ltd. Ignore deferred tax implications on these items.

(iv) The trade receivables of Pelican Ltd included K8 million receivable from Swan Ltd. This balance did not agree with the equivalent trade payable in the books of Swan Ltd due to payment of K2 million made on 30 December 2021 by Swan Ltd to Pelican Ltd.

(v) The group's policy is to measure non-controlling interests in subsidiaries at fair value. The fair value per ordinary share in Swan Ltd at acquisition was K1.50 and can be used for this purpose.

(vi) Goodwill was impaired by 10% for the year ended 31 December 2020. A further impairment approximating 10% of the remaining goodwill is required in the current period. All impairment losses are charged to operating expenses.

Required:

Prepare Pelican Ltd Group's Consolidated Statement of Financial Position as at 31 December 2021. (30 marks)

(b) A member of the Zambia Institute of Chartered Accountants (ZICA) recently got recruited as the Chief Financial Officer (CFO) of Minestone Ltd (Minestone). The company is controlled by a well-known business family and the CFO's family members have been very close friends with owners of Minestone for several years.

Majority of the Finance department staff of Minestone do not have adequate technical knowledge in financial reporting due to the fact that they were recruited based on personal relationships, and not on the required qualifications and experience. On several occasions, the CFO has had to perform their duties in a bid to meet statutory and internal reporting timelines.
Towards the year-end, the company incurred a substantial cost on renovating the Managing Director's private residence. The CFO was instructed by the Managing Director to consider this payment as a company expense regardless of the discussion he had with the CFO on how it should be recognised as an amount due from him to the company. The other members of the Board of Directors are not aware of this transaction. The Managing Director is the largest shareholder of Minestone. Subsequently, the CFO provided forged supporting documents to the external auditor to prove the transaction as a company expense in order to obtain an unmodified audit opinion from them.

Required:

(i) Discuss the ethical issues arising from the facts given above in relation to the five (5) fundamental ethical principles per the International Federation of Accountants Code of Ethics adopted by the Zambia Institute of Chartered Accountants (ZICA). (5 marks)

(ii) Recommend actions that should have been taken to comply with the ethical principles. (5 marks)

[Total: 40 Marks]

SECTION B

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

QUESTION TWO

PROFED Ltd is a listed company at the Lusaka Securities Exchange (LuSE) in Zambia and operates many super markets in the country. The following statements relate to PROFED Ltd for the year 2021 with the previous year as comparative:

Statements of Profit or Loss for the year ended 31 December

	2021	**2020**
	K'million	**K'million**
Revenue	1,255	1,220
Cost of sales	(1,177)	(1,145)
Gross profit	78	75
Operating expenses	(21)	(29)
Profit from operations	57	46
Finance cost	(10)	(10)
Profit before tax	47	36
Income tax	(14)	(13)
Net profit	**33**	**23**

Summarised Statements of Changes in Equity for the year ended 31 December

	2021	**2020**
	K'million	**K'million**
Opening balance	276	261
Profit for the period	33	23
Dividends	(8)	(8)
Closing balance	**301**	**276**

Statements of Financial Position as at 31 December

	2021	**2020**
	K'million	**K'million**
Non-current Assets		
Property, Plant & Equipment	580	575
Goodwill	100	100
	680	675
Current Assets		
Inventory	47	46
Receivables	12	13

Cash	46	12
	105	71
Total Assets	**785**	**746**
Equity		
Share Capital	150	150
Retained Earnings	151	126
	301	276
Non-current Liabilities		
Interest-bearing borrowing	142	140
Deferred tax	25	21
	167	161
Current Liabilities		
Trade and other payables	297	273
Short-term borrowing	20	36
	317	309
Equity and Liabilities	**785**	**746**

Additional Information:

Key ratios for the supermarket sector (based on the latest available financial statements of 12 other listed entities in the sector for the comparative period) were as follows:

(i) Gross Profit margin : 5.90%
(ii) Return on Capital Employed (ROCE) : 3.90%
(iii) Net Assets Turnover : 1.93 times

Required:

Prepare a report addressed to the shareholders of PROFED Ltd, analysing the performance and position of PROFED Ltd based on the extracted financial statements and additional information provided. The report should also include comparisons with key sector ratios (where appropriate).

[Total: 20 Marks]

QUESTION THREE

(a) The following financial statements relate to the XYZ Bank Limited for the year ended 31 December 2021, presented in line with rules of the Banking and Financial Services Act:

Statement of Comprehensive Income for the year ended 31 December 2021

	Note	**K'000**
Interest income	(iii)	364,524
Interest expense	(iv)	(107,571)
Net interest income		256,953

Fees and commission income		132,374	
Fees and commission expense		(24,183)	
Net fees and commission income		108,191	
Other income	(v)	9,727	
Operating income		374,871	
Impairment charge on loans and advances		(93,492)	
Operating expenses	(vi)	(169,317)	
Profit before tax		112,062	
Income tax expense		(33,617)	
Profit for the year		**78,445**	

Statement of Financial Position as at 31 December 2021

	Note	**2021 K'000**	**2020 K'000**
Assets			
Cash and cash equivalents		577,767	752,303
Government securities		2,037,292	1,857,337
Advances to banks		214,875	107,407
Loans and advances to customers		1,190,782	1,145,133
Property and equipment	(vii)	139,889	123,936
Intangible assets	(viii)	18,131	12,162
Income tax asset		6,626	5,778
Total assets		**4,185,362**	**4,004,056**
Liabilities			
Deposits from customers		3,368,406	3,078,071
Other liabilities and provisions		171,718	359,192
Total liabilities		3,540,124	3,437,263
Equity			
Stated capital		100,000	100,000
Retained earnings		545,238	466,793
Total equity		645,238	566,793
Total liabilities and equity		**4,185,362**	**4,004,056**

Notes to financial statements:

1) **The reporting entity**
The XYZ Bank Limited is a limited liability company which was incorporated and domiciled in Zambia. The financial statements of the Bank as at and for the year ended 31 December 2021 comprise the statement of comprehensive income, the statement of financial position together with the notes accompanying the financial statements.

2) **Basis of Preparation**
The financial statements have been prepared in accordance with the Banking and Financial Services Act, Chapter 387 of the Laws of Zambia. The other detailed information has been included, where appropriate.

3) **Interest Income**

	K'000
Cash and short term funds	37,652
Loans and advances	326,872
	364,524

During the year, interest received was K131,292 while interest paid amounted to K94,578.

4) **Interest Expense**

	K'000
Current and savings account	57,253
Time and other deposits	38,828
Borrowings	11,490
	107,571

5) **Other Income**

	K'000
Dividends	9,685
Profit on sale of property and equipment	42
	9,727

Dividends paid during the year amounted to K4,800

6) **Operating Expenses**

	K'000
Staff salaries	125,160
Advertising and marketing expenses	498
Training cost	4,241
Audit fees	696
Directors fees	1,957
Depreciation of property and equipment	30,688
Amortisation of software	6,077

7) **Property and Equipment**

	2021	**2020**
	K'000	**K'000**
Cost		
At 1 January	228,657	165,128
Additions	46,641	63,672
Disposal	(120)	(143)
At 31 December	275,178	228,657
Depreciation		
At 1 January	104,721	83,729
Charge for the year	30,688	21,135
Released on disposals	(120)	(143)
At 31 December	135,289	104,721
Net book value at 31 December	139,889	123,936

8) **Intangible assets**

	2021	**2020**
	K'000	**K'000**
Cost		
At 1 January	24,241	13,077
Additions	12,046	11,164

At 31 December	36,287	24,241
Depreciation		
At 1 January	12,079	9,123
Charge for the year	6,077	2,956
At 31 December	18,156	12,079
Net book value at 31 December	**18,131**	**12,162**

Required:

Using the indirect method, prepare XYZ Bank Limited's statement of cash flows for year ended 31 December 2021, in accordance with IAS 7: Statement of Cash Flows.

(16 marks)

(b) The regulatory framework in corporate reporting stipulates that an entity shall prepare a statement of cash flows in accordance with the requirements of IAS 7: Statement of Cash Flows and shall present it as an integral part of its financial statements for each period for which financial statements are presented.

Required:

Explain four (4) benefits of cash flow information to users of financial statements.

(4 marks)

[Total: 20 marks]

QUESTION FOUR

(a) The IASB's Conceptual Framework identifies, among others, the qualitative characteristics of: relevance, faithful representation, comparability and understandability.

Required:

Justify, with an example each, how the qualitative characteristics will apply to the treatment of tangible non-current assets. (10 marks)

(b) In accordance with *IAS 36 Impairment of Assets*, an entity shall assess at the end of each reporting period whether there is any indication that an asset may be impaired. If any of such indications exist, the entity shall estimate the recoverable amount of the asset. However, some assets would require mandatory testing for impairment.

Required:

Outline assets that require mandatory testing for impairment in accordance with *IAS 36 Impairment of Assets*. (4 marks)

(c) Mwababa, a Chartered Accountant is under pressure from his employees to under declare sales for the year ended 2021 to save the company from paying the due tax for the year. He has evaluated the threat to his professional obligations to comply with the fundamental principles of good ethical behavior, as significant. He has therefore considered safeguards to eliminate or reduce the threat to an acceptable level.

Required:

Discuss two (2) safeguards Mwababa could consider to either eliminate or reduce the threats to an acceptable level. (6 marks)

[Total: 20 Marks]

QUESTION FIVE

(a) IFRS 16 Leases was issued by the International Accounting Standards Board (IASB) on 13 January 2016. IFRS 16 introduces a single model for lessees to remedy the non-recognition of liabilities for assets held under operating leases.

Required:

Explain the accounting treatment of leases under IFRS 16 *Leases* in the financial statements of both lessor and lessee. (6 marks)

(b) Bonilinda's year end is 31 December. He bought a machine on 1 January 2022 for K200,000. The machine's useful economic life had been estimated at 4 years with nil residual value. On 30 September 2022, Bonilinda decided to sell the machine. However, the asset had not been sold by 31 December 2022 but was expected to be sold by 30 April 2023. The fair value less costs to sale for the machine was K180,000 on both 30 September 2022 and 31 December 2022.

Required:

(i) Describe the measurement rules for Non-current assets held for sale according to IFRS 5. (2 marks)

(ii) Describe conditions that should prevail for a sale to be highly probable in accordance with IFRS 5 Non Current Assets held for Sale and Discontinued Operations. (6 marks)

(iii) Assuming the criteria for classification of the asset as held for sale are met, state the amounts which should be shown in Bonilinda's Statement of profit or loss for the year ended 31 December 2022 and his Statement of financial position at that date. (3 marks)

(c) Briefly explain two (2) possible classifications for financial assets equity instruments, clearly stating the circumstance for each classification. (3 marks)

[Total: 20 Marks]

END OF PAPER

CA 2.1 FINANCIAL REPORTING SUGGESTED SOLUTIONS

SOLUTION ONE

(a) **Pelican Ltd Group**

Pelican Ltd Group
Consolidated statement of financial position as at December 31, 2021

		K'000
Assets		
Non-current assets:		
Property, plant and equipment (K122,500 + K75,000 + K6,000 - K2,000)		201,500
Research project (K5,000 - K1,000W2)		4,000
Goodwill (W3)		4,860
		210,360
Current assets:		
Sundry current assets (K69,500 + K44,900 - K8,000 + K2,000 – K1,200)		107,200
Total assets	**317,560**	
Equity and liabilities:		
Ordinary share capital		50,000
10% Preference share capital		5,300
Retained earnings (W5)		93,045
Other reserves		11,000
		159,345
Non-controlling interest (W4) 19,515		
		178,860
Non-current liabilities:		
Sundry (K35,000 + K14,000)		49,000
Deferred tax		700
Current liabilities:		
Sundry (K59,000 + K36,000 – K6,000)		89,000
Total equity and liabilities		**317,560**

Workings

1. **Group structure**
   Pelican Ltd
   30 million shares ÷ 40 million shares = 75 % Group
   25% NCI

2. **Net asset of Swan Ltd**

	Acquisition date	Reporting date	Post-acquisition
	K'000	**K'000**	**K'000**
Ordinary share capital	20,000	20,000	Nil
Retained earnings (58,000 – 20,000 – 2,500 – 1,000)	34,500	46,400	11,900
Preference share capital	2,500	2,500	Nil
Other reserves	1,000	1,000	Nil
Fair values adjustment-Plant (16,000-10,000)	6,000	6,000	Nil
Additional depreciation (6,000 ÷ 6 x 2)	-	(2,000)	(2,000)
Research WIP	5,000	5,000	Nil
Research amortization (5,000 ÷ 5)	-	(1,000)	(1,000)
Deferred tax	(1,000)	(700)	300
	68,000	77,200	9,200

Note: Please only take additional depreciation for current period (i.e. 6 million ÷ 6) to cost of sales.

3. **Goodwill**

Cost of investment (58,000 – 1,500 legal fees)	56,500
Fair value of NCI at acquisition [(40,000 – 30,000) x 1.50)+2,500	17,500
	74,000
Less: Sub's net asset at acquisition date W2	(68,000)
Goodwill at acquisition	6,000
10% Impairment loss (for the year 31 December 2020)	(600)
Goodwill at 31 December 2020	5,400
10% Impairment loss (for the year 31 December 2021)	(540)
Goodwill at reporting date	4,860

Note: Total goodwill impairment since acquisition is K1.14 million (i.e. K0.6 million + K0.54 million).

4. **Non-controlling interest**

Fair value of NCI at acquisition (40,000 – 30,000) x 1.5	15,000
Share of Subsidiary's post-acqn profit-(9,200 x 25%)	2,300
100% of Subsidiary's preference share capital	2,500
Share of impairment loss (25% x 1,140)	(285)

NCI at reporting date	19,515

5. Group retained earnings

Pelican Ltd	89,700
Unrealized profit on inventory at year end (1 ÷ 4 x 4,800)	(1,200)
Due diligence costs	(1,500)
Share in Subsidiary's post-acquisition earnings (75% x K9,200)	6,900
Share of impairment loss (75% x1,140)	(855)
	93,045

6. Movement in unrealised profit

K0.35 m = K1.2 m at year-end (1 ÷ 4 x 4,800) less K0.75 m at start of year (1 ÷ 4 x 3,000)

(b) (i) Ethical issues arising from facts given in relation to the five fundamental ethical principles according to the International Federation of Accountants Ethics Code:

- **Integrity** – The incorrect treatment of the MD's residence renovation expenditure and provision of forged documents to auditors. This casts self-interest and advocacy threat to integrity.

- **Objectivity** – The pressure put on the CFO by the MD could have led to him compromising his professional judgment. Further, the MD is a very close friend of the CFO's family. This casts familiarity and intimidation threat to objectivity.

- **Professional competence and due care** – The accounting team the CFO is in charge of seems incompetent such that the CFO both prepares and reviews the statutory reports. This casts a self-review threat.

- **Confidentiality** – The CFO has not brought this related party transaction to the attention of those charged with governance such as the Related Party Transaction Committee or the Board of Directors. This casts a self-interest threat.

- **Professional behavior** – The incorrect treatment of the MD's residence renovation expenditure and provision of forged documents to auditors. These acts are non-compliant to accounting rules and regulations. This casts a self-interest threat.

(ii)

- Having taken a new position, the CFO should have raised the fact that he felt uneasy about the competency of the staff in the accounting team with other senior members of the company. To do otherwise would compromise his own professional competence and due care. The CFO's area of responsibility will only be as good as the staff working within it. He should have devised a plan and a budget for improving the situation, either through additional training or possibly hiring further qualified staff.

- The CFO should have refused to recognize the related party transaction as a company expense.

- Also, he should have brought this related party transaction to the attention of those charged with governance such as Related Party Transaction committee or Board of Directors. Also, this should have been reported to the auditors.

- The CFO should have sought professional consultation from his regulator, the Zambia Institute of Chartered Accountants (ZICA).

- The CFO should not have been involved in the preparation or approval of any forged documents. If the unresolved conflict is so serious he may resign from his position.

SOLUTION TWO

REPORT

To	:	Shareholders of PROFED Limited
From	:	Management accountant
Date	:	Examination Date
Subject	:	Operational Performance and Financial Position of PROFED Limited for the year ended 31st December 2021

Introduction

As requested, I have analyzed the operational performance and financial position of PROFED Limited. My analysis is based on extracts from the financial statements for the year ended 31 December 2021 with comparative figures for the year ended 31 December 2020. A number of key measures to my analysis have been calculated and these are set out in the attached Appendix.

Financial Performance (Profitability)

Gross profit margin has increased slightly during the year and this is a little above the industry average. However, although net profit margin has increased significantly during the year, this is still below the industry average. The increase in net profit margin has occurred because operating expenses have fallen by over a quarter in 2021. The operating profit margin has risen from 3.8% in 2020 to 4.5% in 2021.

Given the information available, the mostly likely cause of this fall is the increase in asset lives and the resulting reduction in the depreciation expense. As might be expected, the company has a considerable investment in property, plant and equipment and depreciation would normally be a significant expense. An increase in asset is relatively unusual and it is possible the directors have used this method to deliberately improve the operating and the net profit margins. (They may have been particularly concerned that the net profit margin has obviously been well below the industry average.)

On the other hand, the directors of PROFED Ltd may have carried out their review of assets lives in good faith or there could be another legitimate reason why operating expenses have fallen. For example, the 2020 figure may have been inflated by a significant "one off" expense.

Financial Position

The non-current asset turnover has improved slightly, but is still below the industry average. This suggests that the company uses its asset less efficiently than others in the same sector. However, increasing the asset lives will have reduced the ratio for 2021; and perhaps the company's asset turnover would have approached the sector average had the review not been carried out. It is possible that most of the investment in new property was made during 2020. The current ratio for both years is extremely low. Supermarkets often do have relatively low current and quick ratios, but no average figure for the industry is available, so it is difficult to tell whether this is normal for the type of operation.

The short-term liquidity appears not to be a problem because the company has a positive cash balance which has increased in the year. However, the appearance of the statement of financial position suggests that this has been achieved by delaying payment to suppliers.

Trade and other payables have increased by nearly 9%, while revenue and cost of sales have only increased by approximately 3%. The debt-to-equity ratio has fallen in the year and gearing does not appear to be a problem.

Conclusion

PROFED Ltd.'s profit margins appear to be reasonable for a company in its industry sector. Although its net profit margin is below the industry average, this is improving. There are no apparent short-term liquidity problems. It is possible at least some of this improvement has been achieved by deliberately reducing the operating expenses for the year. If, as seems likely, the directors wish to sell their interest in the company in the near future, improved results will help to secure a better price. However, it is impossible to be certain that this has happened without much more detailed information about the reason for the fall in operating expenses. There may be legitimate explanation for the improvement in the company's profit margins.

APPENDIX

	2021	**2020**	**Key Sector Ratio**
Gross profit margin	78 ÷ 1,225 x 100 **6.2%**	75 ÷ 1,220 x 100 **6.1%**	**5.90%**
Net profit margin	57 ÷ 1,255 x 100 **4.5%**	46 ÷ 1,220 x 100 **3.8%**	**Nil**
ROCE	33 ÷ 1,255 x 100 **2.6%**	23 ÷ 1,220 x 100 **1.9%**	**3.90%**
Net assets turnover	1,255 ÷ 680 **1.85 times**	1,220 ÷ 675 **1.81 times**	**1.93 times**
Current ratio	105/317 **0.33:1**	71/309 **0.23:1**	**Nil**
Debt/Equity	142 ÷ 301 x 100 **47.2%**	140 ÷ 276 x 100 **50.7%**	**Nil**

SOLUTION THREE

(a) **XYZ BANK LIMITED**
STATEMENT OF CASH FLOWS FOR YEAR ENDED 31 DECEMBER 2021

	K'000	K'000
Cash flow from operating activities		
Profit for the year	78,445	
Adjusted for –		
Depreciation	30,688	
Amortisation	6,077	
Other operating expenses (169,317 – 30,688 – 6,077)	132,552	
Impairment charge (loans and advances)	93,492	
Net interest income	(256,953)	
Dividend income	(9,685)	
Profit on sale of PPE	(42)	
Tax expense	33,617	
		108,191
Change in:		
Loans and advances to customers (1,190,782 – 1,145,133)	(45,649)	
Advances to banks (214,875 – 107,407)	(107,468)	
Deposits from customers (3,368,406 – 3,078,071)	290,335	
Other liabilities and provisions (171,718 – 359,192)	(187,474)	
Government securities (2,037,292 – 1,857,337)	(179,955)	
		(230,211)
Interest received	131,292	
Dividend received	8,680	
Interest paid	(94,578)	
Income taxes paid (33,617 – 5,778 + 6,626)	(34,465)	
		10,929
Net cash flow from operating activities		*(111,091)*
Cash flow from investing activities		
Purchase of property, plant and equipment	(46,641)	
Proceeds from sale of property and equipment (120 – 120 + 42)	42	
Acquisition of intangible assets	(12,046)	
Net cash used in investing activities		*(58,645)*
Cash flow from financing activities		
Dividends paid	(4,800)	
Net cash from financing activities		*(4,800)*
Net decrease in cash and cash equivalents		*(174,536)*
Cash and cash equivalents at 1st January 2021		752,303
Cash and cash equivalents at 31st December 2021		**577,767**

(b) Benefits of cash flow information to users of financial statements:

- Cash flow information is useful in assessing the ability of the entity to generate cash and cash equivalents and enables users to develop models to assess and compare the present value of the future cash flows of different entities.
- Provides information that enables users to evaluate the changes in net assets of an entity, its financial structure (including its liquidity and solvency) and its ability to affect the amounts of timing of cash flows in order to adapt to changing circumstances and opportunities.

- It also enhances the comparability of the reporting of operating performance by different entities because it eliminates the effects of using different accounting treatments for the same transactions and events.

- Cash flow information is often used as an indicator of the amount, timing and certainty of cash flows.

- It is also useful in checking the accuracy of past assessments of future cash flows and in examining the relationship between profitability and net cash flow and the impact of changing prices.

SOLUTION FOUR

(a) Qualitative characteristics as applicable to tangibles non-current assets illustrated by IAS 16

- *Relevance*
  The choice of the revaluation model as a measurement model in IAS 16 provides relevant information by showing up-to-date values. This will help give an indication as to what the entity's underlying assets are worth. Revaluations should be applied to all assets in a class, not just those with positive changes.

- *Faithful representation*
  Although the revaluation model gives relevant information this information is generally seen to be a less faithful representation than the cost model – the other measurement model allowed by IAS 16. The cost model is based on historic costs which are not the most relevant costs on which to base future decisions. However, historic cost is based on fact, so can claim to represent that which it purports to represent. The recognition criteria of IAS 16, setting out what may be recognized as part of the cost of an item of property, plant and equipment also aids verifiability of the resultant figure.

- *Comparability*
  The standard 'rules' laid down in IAS 16 mean that the financial statements of different companies can be compared as they have been prepared on the same basis. IAS 16 also facilitates comparability between companies by requiring the disclosure of accounting policies (per IAS 8) in respect of, for example, depreciation methods and measurement bases. It also requires the disclosure of both carried forward and brought forward figures, aiding comparability between this year and the previous year. IAS 16 allows comparability between the cost and the revaluation model (for example to facilitate comparison between two companies who have adopted different models) by requiring equivalent cost information to be disclosed under the revaluation model. It also requires disclosures (in line with IAS 8) of the effect of a change in an accounting estimate such as useful lives or depreciation rates.

- *Understandability*
  To improve understandability IAS 16 requires disclosures to be given by each class of property, plant and equipment so it will be clear what types of asset have been purchased during the year and what types of assets have been sold. If this information was merged over one class, it would be less understandable. The format of the property, plant and equipment 'table' also aids understandability (with the movement on each class of assets clearly set out) and the disclosure of depreciation policies aids an understanding of asset lives.

(b) Irrespective of whether there is any indication of impairment, an entity shall:
  - test an intangible asset with an indefinite useful life or
  - an intangible asset not yet available for use
  - test goodwill acquired in a business combination for impairment annually by comparing its carrying amount with its recoverable amount.

(c) Safeguards Mwababa could consider to either eliminate or reduce the threats to an acceptable level.

  - Self-Interest Threats - Self-interest threats may occur as a result of Mr. Mwababa's financial interest. This might be his only source of employment. He might have concerns about employment security. Such financial interests might cause Mr. Mwababa to be reluctant to take actions that would be against his own financial interests. Safeguards may include consultation with superiors within the employing organisation, for example, the audit committee or other body responsible for governance, or with the Zambia Institute of Chartered Accountants (ZICA).

- Advocacy Threats - Mr. Mwababa as an employee is expected to promote the employer's position by providing financial information as long as information provided is neither false nor misleading. Any false or misleading information might create an advocacy threat. As a safeguard, Mr. Mwababa should refuse to remain associated with information that may be misleading. If the pressure is persistent, should consider informing appropriate authorities in line with the guidance in this code of ethics. He may also wish to seek legal advice or resign.

- Intimidation Threats - Intimidation threats occur when a Mr. Mwababa entertain fears that there is an aggressive and dominating pressure from his employer to act unethically. There might be threat of dismissal or replacement over a disagreement about the application of an accounting principle or the way in which financial information is to be reported.

- Safeguards may include consultation with audit committee, if they have one, the board, or with ZICA. He may also wish to seek legal advice or simply resign from employment.

SOLUTION FIVE

(a) **Accounting for leases under IFRS 16'Leases'**

Accounting by lessee

Upon lease commencement a lessee recognizes a right-of-use asset and a lease liability. The right-of-use asset is initially measured at the amount of the lease liability plus any initial direct costs incurred by the lessee. Adjustments may also be required for lease incentives, payments at or prior to commencement and restoration obligations or similar obligations. After commencement of lease, lessee shall measure the right-of-use asset using a cost model, unless:

(i) the right-of-use asset is an investment property and the lessee recognizes its investment property at fair value under IAS 40; or

(ii) the right-of-use asset relates to a class of PPE to which the lessee applies IAS 16's revaluation model, in which case all right-of-use assets relating to that class of PPE can be revalued.

Under the cost model a right-of-use asset is measured at cost less accumulated depreciation and accumulated impairment. The lease liability is initially measured at the present value of the lease payments payable over the lease term, discounted at the rate implicit in the lease if that can be readily determined. If that rate cannot be readily determined, the lessee shall use their incremental borrowing rate.

Variable lease payments that depend on an index or a rate are included in the initial measurement of the lease liability and are initially measured using the index or rate as at the commencement date. Amounts expected to be payable by the lessee under residual value guarantees are also included. Variable lease payments that are not included in the measurement of the lease liability are recognised in profit or loss in the period in which the event or condition that triggers payment occurs, unless the costs are included in the carrying amount of another asset under another Standard.

The lease liability is subsequently re-measured to reflect changes in:

- the lease term (using a revised discount rate);
- the assessment of a purchase option (using a revised discount rate);
- the amounts expected to be payable under residual value guarantees (using an unchanged discount rate); or
- future lease payments resulting from a change in an index or a rate used to determine those payments (using an unchanged discount rate).

The re-measurements are treated as adjustments to the right-of-use asset. Lease modifications may also prompt re-measurement of the lease liability unless they are to be treated as separate leases.

Accounting by lessor

Lessors shall classify each lease as an operating lease or a finance lease.

A lease is classified as a finance lease if it transfers substantially all the risks and rewards incidental to ownership of an underlying asset. Otherwise a lease is classified as an operating lease. Upon commencement of the lease, a lessor shall recognise assets held under a finance lease as a receivable at an amount equal to the net investment in the lease.
A lessor recognises finance income over the lease term of a finance lease, based on a pattern reflecting a constant periodic rate of return on the net investment. At the date of commencement, a manufacturer or dealer lessor recognises selling profit or loss in accordance with its policy for outright sales to which IFRS 15 applies.

A lessor recognises operating lease payments as income on a straight-line basis or, if more representative of the pattern in which benefit from use of the underlying asset is diminished, another systematic basis.

(b)

(i)

IFRS 5 states that non-current assets (or disposal groups) classified as held for sale are measured at the **lower of:**

- Carrying amount; and
- Fair value less costs to sell.

Any impairment loss arising on reclassification is accounted for as normal (IAS 36). Non-current assets/disposal groups classified as held for sale are **not depreciated.**

(ii) **The sale is Highly Probable if:**

(a) Management **committed to a plan** to sell.

(b) **Active programme** to locate a buyer and complete the sale initiated.

(c) **Sale price reasonable** compared to its current fair value.

(d) Sale expected to be **complete within one year from** the date of classification (subject to limited **exceptions**).

(e) **No indication** that there will be **significant changes made to** the plan of sale.

(iii)
In the Statement of profit or loss for the year ended 31 December 2022, the depreciation expense will be K37,500 (25% x K200,000 x 9 ÷ 12) which is for 9 months to 30 September 2022. There will be no depreciation for the last 3 months as the asset was classified as 'held for sale' effective 1st October 2022.

At 30 September 2022 the asset will be measured at its carrying amount of K162,500 (K200,000 cost, less depreciation K37,500), which is lower than the fair value less costs to sell of K180,000. The same amount will be reflected in the statement of financial position at 31 December 2022 as a current asset. There will be no impairment loss on 30 September 2022.

Classification for financial asset equity instruments

All equity investments within the scope of IFRS 9 are to be measured at fair value in the statement of financial position, with value changes recognised in profit or loss, except for those equity investments for which the entity has elected to present value changes in 'other comprehensive income'. Other comprehensive income option; If an equity investment is not held for trading, an entity can make an irrevocable election at initial recognition to measure it at FVTOCI with only dividend income recognised in profit or loss.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ZAMBIA APPLICATION ADVANCED DIPLOMA IN ACCOUNTANCY

CA 2.2: MANAGEMENT ACCOUNTING

TUESDAY 13 JUNE 2023

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

INSTRUCTIONS TO CANDIDATES

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

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

   Section A: One (1) Compulsory scenario question.
   Section B: Four (4) Optional scenario Questions. Attempt any Three (3) questions.

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

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

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

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

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

8. Present legible and tidy work.

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

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

SECTION A

This Question is compulsory and MUST be attempted.

<u>QUESTION ONE</u> – (COMPULSORY)

Mambato Ltd (M Ltd) is a company that manufactures work suits for the manufacturing industry. The manufacturing industry is a highly differentiated industry producing work suits, acid and heat resistant gum boots, safety gloves, helmets, safety goggles and related personal protective equipment (PPE).

M Ltd manufactures three types of work suits, namely, A, B and C using the same resources but in different amounts.

Budgeted information per unit is as follows:

	A	B	C
	K	K	K
Selling price	125	20	50
Direct materials(fabric): K10 per m^2	50	5	15
Direct labour: K6 per hour	18	6	13.5
Variable overhead: K1.5 per per machine hour	4.5	1.5	3.375

Total fixed costs are K75, 000 per month.

In the original budget prepared at the beginning of the year, the sales demand for the month of June, 2023 was forecast to be:

	A	B	C
Demand in units (work suits)	1,000	3,000	2,000

A new customer, Livestock Ltd, who is a retailer, requested 500 work suits of each of A, B and C for delivery in June, 2023. This order or request was made after the construction of the original budget. The budgeted demand shown above does not include this order from the new customer.

It is forecast that there will be limited resources available in June, 2023. Resources will be limited to:

Direct materials	7,250m^2
Direct labour	15,000 hours

There will be no opening inventory of fabric material, work –in-progress or finished goods.

Required:

(a) Determine the optimal production plan and the resulting profit or loss for June, 2023.

N.B. You should assume the new customer's order must be supplied in full to avoid penalties enshrined in the contract. (14 marks)

(b) Explain two (2) issues that should be considered before the production plan, that you produced in part (a), is implemented. (6 marks)

The senior management of M Ltd have now addressed the shortage of key resources to ensure that production will meet demand in July 2023. The production plan for the month of July 2023 is shown below.

Product	**A**	**B**	**C**
Production (units)	2,000	2,500	2,000

Required:

(c) (i) Calculate the breakeven sales revenue for the given product mix in the production plan for the month of July 2023. (8 marks)

(ii) Explain three (3) limitations in the breakeven analysis for M Ltd. (6 marks)

(d) At one of the board meetings, the Financial Director of M Ltd stated that one of the objectives of the cost and management accountant is to assist management in the process of planning, control and decision making.

Required:

Describe techniques by which the cost and management accountant can achieve the above objective. (6 marks)

[Total: 40 Marks]

SECTION B

There are Four (4) questions in this section. Attempt any Three (3) questions.

QUESTION TWO

Tusole Shoe Ltd (TSL) manufactures various sizes of shoes. It operates a standard marginal costing system. The Production Manager recently claimed that the production of small sizes is more efficient than big sizes. However, the sales manager believes that it is more profitable to market and sell the big sizes. The Management Accountant has prepared the following average standard cost card for performance evaluation:

Standard cost card:

	Cost/shoe
Direct material:	
Rubber (K250 per kg)	K50.00
Leather (K150 per kg)	K15.00
Direct labour (2 hours per shoe)	K30.00
Variable overheads (2 hours per shoe)	K14.00
Standard marginal cost	**K109.00**

The following were actual results for the period:

Production (number of shoes):	120,000
Direct material :	
Rubber	25,200 kg were bought and used at a cost of K6,930,000
Leather	10,800 kg were bought and used at a cost of K1,675,500
Direct labour	180,000 hours were worked for at a cost of K2,900,400
Variable overheads	K1,220,000

Required:

(a) Calculate the following variances for the period:

(i) Price and usage variances for each material (4 marks)

(ii) Mix and yield variances for each material (4 marks)

(iii) Labour rate and efficiency variances (2 marks)

(iv) Variable overhead expenditure and efficiency variances (2 marks)

(b) Prepare a performance management report for TSL that reconciles actual and budgeted results. (4 marks)

(c) Outline the behavioural implications of budgeting and budgetary control. (4 marks)

[Total 20 Marks]

QUESTION THREE

Charity and Chizongo have been working as carpenters for a local company in Lusaka for many years. They have now partnered to open their own carpentry business with capital amounting to K96,900 each obtained from their previous employment.

The following information relates to their business:

1. Business start-up costs including registrations with relevant authorities will cost K3,000;
2. Rent of office and workshop space will be K3,500 per month payable three months in advance with a security deposit of one month rent payable on commencement;
3. Electricity water and other utilities will cost K2,500 per month projected to increase by 40% in March 2023;
4. Depreciation of the machinery and equipment is estimated at K12,500 per month and they plan to replace this equipment at a total cost of K200,000 in June 2023;
5. The partners plan to employ five people from 3 January 2023 and each will be paid K4,000 per month;
6. The partners concluded negotiation for an order of 1,500 school desks at a price of K950 per unit. A duly signed and approved order will be ready in February with an advance payment of 20% to be paid on order. The balance of the amount will be payable 30 days following the delivery of the consignment. The partners have indicated that they will be able to deliver in May 2023 once all the materials are available;
7. On 17 February 2023, a supplier agreed to provide all the required materials for the partners to complete the desks at a total cost of K1,050,000. The supplier further indicated that with a payment of 50%, all the materials can be collected with the balance payable in 40 days. The partners agreed and collected the materials on the same date;
8. The business will be subject to monthly statutory obligations including 4% turnover tax and other staff related statutory payments such as 5% National Pension scheme for staff and 3% to cater for staff health insurance, workers' compensation and personal levy; and
9. Other cash costs are estimated at K2,500 per month and K10,500 for delivery costs for the desks.

The partners are aware that you are studying the CA – Zambia qualification and they have approached you to prepare a cash flow statement or cash budget as they are not sure about the differences between the two. Further, they want you to advise them on the business.

Required:

(a) Compare and contrast a cash flow statement and cash budget (4 marks)

(b) Prepare a cash budget for the six months to 30 June 2023 and advise the partners on the business. (16 marks)

[Total: 20 Marks]

QUESTION FOUR

Mwapepa City Council (MCC) is a Central Government Authority established in 1913 to manage the city affairs including environmental and public health, waste management, licensing, rates and levies, public infrastructure, libraries and hiring out venues for events.

The administration of MCC is divided into two, the first is a political wing headed by the mayor while the administration part is led by the town clerk and four directors representing four units namely: environmental and public health, waste management, licensing, rates and levies and libraries and venues for hire.

The mayor of MCC is elected by the people through elections held every five years while the town clerk is appointed by the minister in charge of local government. The management team, headed by the town clerk ensures that the decided policies are implemented for the general good of the citizens, while policies are formulated by the minister through central government.

The budget for MCC has been supported by the central Government, although the authority has always received limited funds and sometimes delayed funding. The approximate budget is ZMW4.5 billion per year but about 60% would be received. This has negatively impacted the provision of services which usually are free.

The government has expanded the role of MCC to operate with a view to make profit and support its budget with at least 70% internal funding and the central Government contributing 30%. The town clerk was tasked to ensure MCC provides quality public services to the community, undertakes effective planning and implementation of prudent decisions, adopt a business model for appropriate units that considers responsibility accounting and reporting in the management systems to enhance operations.

The central Government has directed that MCC's 2023 budget should include revenue generation and demonstrate profitability to support its operation.

Required:

(a) Explain the importance of identifying units as cost centre, revenue centre, profit centre or investment centre in responsibility accounting. (6 marks)

(b) Explain the advantages and disadvantages to MCC for adopting the 2023 budget preparation approach.
(8 marks)

(c) Identify with reasons MCC's units that can operate as profit centres. (6 marks)

[Total: 20 Marks]

QUESTION FIVE

SM Legal Practitioners (SMLP) is a registered law firm that provides various services including legal advice, land conveyance services, document drafting and legal representations. The firm has two senior partners, three associates and four junior associates. The firm has established a fee structure that is used to prepare client fee notes as shown below;

Senior partner rates	-	K6,500 per hour
Associate rates	-	K5,000 per hour
Junior associate rates	-	K3,500 per hour

All works undertaken is first done by the junior associates and reviewed by the associates and finally submitted to the senior partner assigned for further review and subsequent approval. Therefore, any job will be performed by a combination of both associates (associates and junior associates) and a senior partner.

SMLP has created a good name for the services that it offers owing to the dedication and commitment of its entire staff to client matters.

The firm has recently received a request from a client for land conveyance services, legal advice and representation.

Land conveyance

This matter relates to land which had been in dispute for many years. The land is situated in the prime area of the city and is valued at K3.5 million. The firm has estimated to spend a total of 40 hours on this assignment with the senior partner spending 15% of the time, associates 55% and the rest by the junior associate.

Legal advice and representation

This relates to a civil jurisdiction matter that will go to trial in the high court in which the client is suing for damages in excess of K1.8 million excluding interest and other costs as determined by the court. This is estimated to take a total of 60 hours with the senior partner spending 40% of the time while the junior associates will spend a third of the time with the rest of the time by the associates.

The firm's fee policy includes:

(i) A recovery of other costs at 20% of both associates and junior associates' times.
(ii) Charge a 25% margin.

Required:

(a) Calculate the fees chargeable to the client for the requested services. (10 marks)

(b) Explain two (2) disadvantages of the costing system used by the firm to charge client fees. (4 marks)

(c) Suggest two (2) alternative costing approaches that SMLP could use to charge client fees giving a reason for each suggested approach. (6 marks)

[Total: 20 Marks]

END OF PAPER

CA2.2 MANAGEMENT ACCOUNTING SUGGESTED SOLUTIONS

SOLUTION ONE

(a)

Step1: Confirm Limiting Factor

	A	B	C	Total	Available	(Deficit)/ Surplus
Material m^2 per unit	5	0.5	1.5			
Labour hours per unit	3	1	2.25			
Demand(budget+Order)	1,500	3,500	2,500			
Material m^2 required	7,500	1,750	3,750	13,000	7,250	(5,750)
Labour hours required	4,500	3,500	5,625	13,625	15,000	1,325

Conclusion: **fabric material** is a limiting factor

Step 2: Compute contribution per limiting factor and rank

	A	**B**	**C**
	K	**K**	**K**
Selling price	125	20	50
Direct material (K10x5/0.5/1.5)	(50)	(5)	(15)
Direct labour(K6x3/1/2.25)	(18)	(6)	(13.5)
Variable overhead	(4.5)	(1.5)	(3.375)
Contribution per unit	52.5	7.5	18.125
Material m^2 per unit	5	0.5	1.5
Contribution per material m^2	10.5	15	12.08
Ranking	3rd	1st	2nd

From the 7,250m^2 of fabric material available, 3,500m^2 will be allocated to the special customer order leaving 3,750m^2 for general customers.

Step 3: Calculate optimal budget and profit

Ranking	Product	Demand	m^2/unit	Total m^2
1st	B	3000	0.5	1,500
2nd	C	1500	1.5	2,250
			Total material available and allocated	3,750

Product	General demand +special order	Contribution per unit	Total contribution
A	(0 + 500) = 500	K 52.50	26,250
B	(3,000 +500)= 3,500	K7.50	26,250
C	(1,500 + 500)=2,000	K18.125	36,250
		Total contribution	88,750
	Less: fixed costs		(75,000)
	Profit for June 2023		**13,750**

(b) Explanation of **Two** Issues to be Considered Before Production Plan is Implemented.

Issue 1

The optimal production plan is based on demand assumptions that were budgeted at the start of the year. This may not consider the latest external demand from the special customer. This is not considered in the budget as it was prepared at the start of the year before the order from Livestock Ltd.

Issue 2

The optimal production plan is based on the most effective use of resources at M Ltd and not on the requirements of its customers. For example, according to the optimal plan, Product A model is to be produced for the special customer only; leaving general customers unsatisfied.

Issue 3

The availability of the fabric material in June is limited to 7,250m^2. The reduced availability of material may also lead to the increased price per m^2. This means that the assumptions on the material price should also be updated.

N.B. Only two issues should be provided by candidates:

(c)

(i) Breakeven sales revenue for the product mix in the production plan

	A	B	C	Total
	K	K	K	
Demand(units)	2,000	2,500	2,000	
Sales revenue	250,000	50,000	100,000	400,000
(demand xK125/K20/K50)				
Contribution	105,000	18,750	36,250	160,000
(demand xK52.5/K7.50/K18.125)				

Weighted Average C/S ratio
K160,000/K400,000 = 40%

B.E.P = Total FC/wt. average C/S $\frac{K75,000}{40\%}$

Break even sales revenue =**K187,500**

(ii) Explanation of **THREE** limitations of breakeven analysis for M Ltd

- The analysis assumes that the products will be sold in the above mix, i.e.
  1:1.5:1. This may not be the case for M Ltd and consumer demand cannot be predicted with certainty. Changes in relative demand for

different products are not provided for in the breakeven analysis.

- It assumes that costs and revenues behave in a linear fashion over the product range. This may not be the case because this assumption over-simplifies the cost and revenue relationships and impacts the accuracy of the resulting calculation.

- Fixed costs are assumed to be constant over the entire production range. For example, an increase in fixed costs due to production facility expansion is not considered in the analysis.

(d) **Planning**

The cost and management accountant uses a budgetary planning and control system as the principal technique by which he / she assists management in the process of planning.

In the short term planning process of budgeting, the Cost and Management Accountant provides invaluable information on past costs and revenues which may be used as guidance for the budget. The management accountant is also deeply involved in the budgeting process itself. He/she establishes budget procedures, provides a budget timetable, coordinates and ensures the harmonization of all subsidiary budgets to prepare the master budget which is presented to management for approval.

In general terms, the Cost and Management Accountant assists planning by providing information. This information may be about pricing, capital expenditure projects, product cost or competitors.

Control

The cost and management accountant provides invaluable assistance in the controlling process.

- A system of budgetary control is again vital in the cost and management accountant's provision for assistance. A budget is basically a yardstick against which actual performance is measured and assessed. The accountant provides control over actual performance by making comparisons of actual results against the budget plan. He/ she can then investigate departures from budget and the reasons for the departures can be divided into controllable and non-controllable factors.

- The operation by the cost and management accountant of suitable inventory control system can assist in inventory reduction and controlling the cost of inventory.

- The provision of detailed and accurate labour records by the cost and management accountant can aid the control of labour efficiency and improve manpower planning.

- The cost and management accountant is likely to be involved in the running of a standard costing system and in the determination (by providing information) of standard costs. A standard costing system helps to monitor the costs of individual products/ services against the predetermined standards to ensure that actual costs are under control.

Decision making

By using and applying the principles of relevant costing, the cost and management accountant assists management in the process of decision making. Relevant costs are those costs which need to be taken into an account when a decision is to be made.

As well as relevant costing, cost-volume-profit (breakeven) analysis and limiting factor analysis can be used to make decisions such as shutdown decisions, joint product decisions, product mix decisions and make or buy decisions.

When an organisation intends to invest in capital project, it is likely to be the cost and management accountant who is involved in the appraisal of the investment.

SOLUTION TWO

(a) Variances

(i) **Material Price**

Material	Standard cost (K)	Actual cost (K)	Variance (K)
Rubber	6,300,000	6,930,000	630,000 (A)
Leather	1,620,000	1,675,500	55,500(A)
	7,920,000	8,605,500	685,500(A)

Material Usage

Material	Standard usage (Kg)	Actual usage (Kg)	Difference in usage (Kg)	Standard price (K)	Variance (K)
Rubber	24,000	25,200	1,200	250	300,000(A)
Leather	12,000	10,800	1,200	150	180,000(F)
	36,000	36,000			120,000(A)

(ii) **Material Mix**

Material	AQSM (Kgs)	AQAM (Kgs)	Difference in mix (Kgs)	Standard price (K)	Variance (K)
Rubber	24,000	25,200	1,200 (A)	250	300,000 (A)
Leather	12,000	10,800	1,200 (F)	150	180,000 (F)
	36,000	36,000			120,000 (A)

Material Yield

Material	SQSM (Kg)	AQSM (Kg)	Difference in mix (Kgs)	Standard price (K)	Variance (K)
Rubber	24,000	24,000	0	250	0
Leather	12,000	12,000	0	150	0
	36,000	36,000			0

(iii) **Labour Rate**

Standard cost (K)	Actual cost (K)	Variance (K)
2,700,000	2,900,400	200,400 (A)

Labour efficiency

Standard Hours	Actual Hours	Difference in hours	Standard Rate (K)	Variance (K)
240,000	180,000	60,000(F)	15	900,000(F)

(iv) **Variable overhead expenditure**

Standard Cost (K)	Actual cost (K)	Variance (K)
1,260,000	1,220,000	40,000(F)

Variable overhead efficiency

Standard Hours	Actual Hours	Difference in hours	Standard Rate (K)	Variance (K)
240,000	180,000	60,000(F)	7	420,000(F)

(b) Performance report

			K
Actual Cost			**12,725,900**
Variances	(A)	(F)	
Material price	685,500		
Material usage	120,000		
Labour rate	200,400		
Labour efficiency		900,000	
Variable OH expenditure		40,000	
Variable OH efficiency		420,000	
	1,005,900	1,360,000	354,100 (F)
Budgeted Cost (120,000 x K109)			**13,080,000**

(c) Behavioural implications

- Poor attitudes when setting budgets
- Poor attitudes when putting plans into action
- Poor attitudes and the use of control information
- Pay as a motivator

SOLUTION THREE

(a) *Compare and contrast a cash flow statement and cash budget*

Cash flow statement and cash budgets are mistakenly viewed as the same when they are different. They do have some similarities and below is a summary of these;

Similarities

- ✓ Both are periodic statements
- ✓ Both explain movements in cash and cash equivalents
- ✓ Both consider only cash related transactions

Contrast

- ✓ Cashflow statement is historical while cash budget is futuristic
- ✓ Cashflow statement is summarised and usually for external use while cash budget is detailed and for internal use
- ✓ Cashflow statements are prepared in a structure format while cash budget can be in any format

(b) *Prepare a cash budget for the Six months to 30th June 2023 and advise the partners on the business*

Cash budget for the Six months period to 30th June 2023

Details	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**
	ZMW	**ZMW**	**ZMW**	**ZMW**	**ZMW**	**ZMW**
Receipts						
Customer receipts		285,000				1,140,000
Payments						
Business start up	3,000					
Rentals	14,000			10,500		
Electricity	2,500	2,500	3,500	3,500	3,500	3,500
Machinery						200,000
Salaries/wages	20,000	20,000	20,000	20,000	20,000	20,000
Suppliers		525,000		525,000		
Turnover tax		57,000				
Other statutory payments	1,600	1,600	1,600	1,600	1,600	1,600
Other costs	2,500	2,500	2,500	2,500	2,500	2,500
Delivery costs					10,500	
Total payments	**43,600**	**608,600**	**27,600**	**563,100**	**38,100**	**227,600**
Balance	(43,600)	(323,600)	(27,600)	(563,100)	(38,100)	912,400
Opening balance	193,800	150,200	(173,400)	(201,000)	(764,100)	(802,200)
Closing balance	150,200	(173,400)	(201,000)	(764,100)	(802,200)	110,200

- ✓ Format of cash budget
- ✓ 20% February receipt = ZMW285,000

- ✓ 80% June receipt = ZMW1,140,000
- ✓ Business start-up costs in January ZMW3,000
- ✓ Rentals in Jan ZMW14,000 and April ZMW 10,500
- ✓ Electricity month with increase to ZMW3,500 from March
- ✓ Machinery ZMW200,000 in June
- ✓ Salaries ZMW20,000 monthly
- ✓ Materials ZMW525,000 in Feb and in April
- ✓ Turnover tax ZMW57,000 in Feb
- ✓ NAPSA, health insurance and workers comp. monthly 8% of salaries ZMW1,600
- ✓ Other costs monthly ZMW2,500
- ✓ Delivery costs in May ZMW10,500
- ✓ Opening cash injected ZMW193,800
- ✓ Closing cash balance in June ZMW110,200

Advise

The business is projected to have a positive cash flow at the end of the six months period, therefore, there is need to implore cash management strategies in the immediate. Some of the measures among others include;

- ✓ Negotiate monthly receipts from customer starting Feb of ZMW285,000
- ✓ Defer supplier payments to match with receipts
- ✓ Increase capital injection with extra amount recoverable in June

SOLUTION FOUR

(a) *Explain the importance of identifying units as cost centre, revenue centre, profit centre or investment centre in responsibility accounting*

Responsibility accounting is a system of accounting that segregates revenue and costs into areas of personal responsibility in order to monitor and assess the performance of each part of an organisation. A responsibility centre is a department or function whose performance is the direct responsibility of a specific manager Managers of responsibility centres should only be held accountable for costs over which they have some influence. From a motivation point of view this is important because it can be very demoralizing for managers who feel that their performance is being judged on the basis of something over which they have no influence. It is also important from a control point of view in that control reports should ensure that information on costs is reported to the manager who is able to take action to control them.
Responsibility accounting attempts to associate costs, revenues, assets and liabilities with the managers most capable of controlling them. As a system of accounting, it therefore distinguishes between controllable and uncontrollable costs and therefore some manager need to determine and collect costs where they are responsible over s cost centre. Others need to determine and collect revenues where they are responsible over a revenue centre and those responsible over a profit cente would need to determine profit by both collecting costs and revenue. Lastly, where a unit it designated as an investment centre the manager will need to determine returns on investment by collecting costs, revenue and investment.

Other valid answers for example to measure costs, revenues, profit and investments accurately with each point explained correctly

(b) *Explain the advantages and disadvantages to MCC of the 2023 budget preparation approach*

There are significant changes in the manner that MCC will budget for 2023. MCC's 2023 budget should include revenue covering at least 70% of total costs, which was not done before. Possibly MCC, will need to include a profit statement and therefore, the generation of revenue should be realistic and attainable as any drop in revenue could result in some costs not being supported. This should motivate performance and reduce dependency on the central government. Some of the advantages include;

Advantages

- ✓ MCC motivated to manage costs and revenue
- ✓ Timely implementation of activities by MCC as they collect their own funds
- ✓ Low dependency on central Government

Disadvantages

- ✓ MCC has no experience in revenue generation
- ✓ Profit motive could lead to high prices for public services previously free
- ✓ MCC may not generate the required revenue

(c) *Identify with reasons MCC's units that can operate as profit centres*

MCC has several centres, some of which could be identified as profit centres. However, it is important to note that MCC has never operated profit centres before and therefore there will be need for some expert skills to be engaged in the initial phase. Below is a summary of some of the identified centres;

- ✓ Waste management – has potential for commercialization as other private companies already in this business
- ✓ Libraries and venue hire – libraries with relevant and updated books and elegant venues for events management are booming businesses
- ✓ Licencing, rates and levies -chargeable at a margin or mark-up could generate revenue and profit.
- ✓ Environmental and Public health is best suited as a cost centre to encourage the public and other stakeholders undertake activities that promote good practices

SOLUTION FIVE

(a) *Calculate the fees chargeable to the client for the requested services*

Land conveyance

Total hours = 40

	ZMW
Senior Partner (15% x 40hrs x ZMW6,500)	39,000
Associates (55% x 40hrs x ZMW5,000)	110,000
Junior Associates (30% x 40hrs x ZMW3,500)	42,000
Sub-total	191,000
Indirect costs (20% x ZMW152,000)	30,400
Full cost	221,400
Profit margin (25/75 x ZMW221,400)	73,800
Total fee chargeable	**295,200**

- ✓ Senior partner time 6hrs x ZMW6,500 = ZMW39,000
- ✓ Associate time 22 hrs x ZMW5,000 = ZMW110,000
- ✓ Juniors time 12hrs x ZMW3,500 = ZMW42,000
- ✓ Other costs recovery 20% x ZMW152,000 = ZMW30,400
- ✓ Full cost = ZMW221,400
- ✓ Profit margin 25/75 x ZMW221,400 = ZMW73,800
- ✓ Chargeable fee = ZMW295,200

Legal advice and representation

Total hours = 60

	ZMW
Senior Partner (40% x 60hrs x ZMW6,500)	156,000
Associates (40% x 60hrs x ZMW5,000)	80,000
Junior Associates (20% x 60hrs x ZMW3,500)	70,000
Sub-total	306,000
Indirect costs (20% x ZMW150,000)	30,000

Full cost	336,000
Profit margin (25/75 x ZMW336,000)	112,000
Total fee chargeable	**448,000**

- ✓ Senior partner time 24hrs x ZMW6,500 = ZMW156,000
- ✓ Associate time 16 hrs x ZMW5,000 = ZMW80,000
- ✓ Juniors time 20hrs x ZMW3,500 = ZMW70,000
- ✓ Other costs recovery 20% x ZMW150,000 = ZMW30,000
- ✓ Full cost = ZMW336,000
- ✓ Profit margin 25/75 x ZMW336,000 = ZMW112,000

Chargeable fee = ZMW448,000

(b) *Explain TWO disadvantages of the costing system used by the firm to charge client fees*

SM Legal Practitioners uses an absorption costing approach, with overheads absorbed using an arbitrary rate based on the total hours for both associates. This may not reflect the true cost of the time taken for the activity. Therefore, the key disadvantages of this costing approach include;

- ✓ Use of arbitrary absorption rates e.g 20%
- ✓ Lack of details in costing e.g assumes time is only cost driver

Other valid answers to be give credit e.g some cases take too long to close, high debtors

(c) *Suggest two alternative costing approaches that SM could use to charge client fees giving a reason for each suggested approach*

Activity based costing – will provide more details on costs, fees to be based on actual activities undertaken for a case

Job costing – to allow for specific costing for each case, consider fixed costs plus variable costs

Other costing approaches such as marginal costing, relevant costing, service costing etc with valid reasons.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ZAMBIA APPLICATION ADVANCED DIPLOMA IN ACCOUNTANCY

CA 2.3: AUDITING PRINCIPLES AND PRACTICE

THURSDAY 15 JUNE 2023

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

INSTRUCTIONS TO CANDIDATES

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

2. This paper is divided into TWO (2) sections:
   Section A: One (1) Compulsory scenario question.
   Section B: Four (4) Optional Questions. Attempt any Three (3) questions.

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

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

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

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

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

8. Present legible and tidy work.

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

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>

Busanga Ltd is a large supermarket chain which has outlets in Livingstone, Lusaka and Kitwe. It was incorporated in 2021 and began its business operations on 1 July 2021. It currently has three hundred (300) employees.

You are a Senior Audit Supervisor in Masuku & Co. responsible for the audit of the financial statements for Busanga Ltd for the year ended 30 June 2022. The following information relates to Busanga Ltd.

Corporate governance:
On 1 January, 2022, the Board of Directors (BOD) established an Audit Committee consisting of three (3) Non-Executive Directors (NEDs). However, the Executive Directors (EDs) perceive that the Audit Committee is detracting from their authority since it has no written terms of reference. To minimize misunderstandings, the directors have requested Masuku & Co. to assist in developing written terms of reference for the Audit Committee. Busanga Ltd has no separate Board Risk Committee.

Internal Audit Function:
The Finance Director considers the Internal Audit Function as very effective and wants Masuku & Co. to use the work of Internal Audit. The Internal Audit Function reports to the Board of Directors and internal auditors are members of the Zambia Institute of Chartered Accountants (ZiCA). The Human Resource Department (HRD) oversees the employment decisions regarding internal auditors. The Internal Audit Function has appropriate quality control procedures and internal audit documentation. However, management has been too busy to act on the recommendations made by internal auditors.

Credit sales system:
Busanga Ltd only allows credit sales to government institutions. Once a government institution places a purchase order with Busanga Ltd, any sales representative for Busanga Ltd raises a sales order that details the purchase order placed by the government institution. The sales orders are not pre-numbered. The sales representative packs the required goods and raises a dispatch note. At the end of each month, consolidated invoices are prepared by the marketing department and sent to respective government institutions. The credit period is 30 days from the date of invoice and there is no credit limit. A number of sales representatives are casual workers and they are paid in cash, on a weekly basis.

The following audit risks were noted by the Audit Manager when he was reviewing the planning working papers of the audit of the financial statements of Busanga Ltd.

(1) Inventories are susceptible to theft.
(2) Invoicing government institutions in arrears.
(3) Management bonuses are based on sales performance.
(4) Large amounts of cash are collected and held prior to banking.

The year-end bank reconciliation shows an amount of K1.5 million as deposits made and not credited by the bank. This is one of the reconciling amounts between the balance per cash book and the balance per bank statements.

Required:

(a) Define corporate governance and recommend four (4) responsibilities which should be included in the written terms of reference for the Audit Committee for Busanga Ltd. (6 marks)

(b) Using the guidance given in ISA 610 (Revised) *Using the work of internal auditors*:

(i) State the criteria used to evaluating the internal audit function. (3 marks)

(ii) Evaluate whether Masuku & Co. should use the work of the Internal Audit Function for Busanga Ltd. (6 marks)

(c) Identify and explain four (4) control deficiencies in the credit sales system for Busanga Ltd. (6 marks)

(d) Recommend five (5) appropriate audit procedures which the auditors should carry out regarding the wages for sales representatives paid in cash. (5 marks)

(e) Explain the audit risks identified by the Audit Manager and recommend appropriate responses. (10 marks)

(f) Explain the meaning of substantive procedures and recommend three (3) suitable substantive procedures for outstanding lodgments. (4 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt any THREE (3) questions in this section.

<u>QUESTION TWO</u>

You are the Audit Manager in your firm of Chartered Accountants. You have been assigned to the audit of the financial statements for Kakumbi Ltd and Jumbo Plc for the year ended 30 September 2022.

Kakumbi Ltd
The Engagement Partner has suggested that you should use audit test data when auditing the programmed controls in the computerized purchasing system. One of the programmed controls involves a program which automatically checks the calculation of value added tax at standard rate and total of invoice.

Jumbo Plc
The draft statement of financial position for Jumbo Plc as at 30 September 2022 shows a total non-current assets balance of K28 million. This figure represents a material amount of the financial statements. You have been provided with schedules showing the make-up of the above balance by the Financial Accountant.

Required:

(a) Using the information regarding Kakumbi Ltd:

(i) Define audit test data and clearly distinguish live audit test data and dead audit test data. (4 marks)

(ii) State the basic principle of using audit test data and explain two (2) tests of control to be performed on the programmed controls given. (6 marks)

(iii) Explain why audit test data is used less as a computer assisted audit technique (CAAT) in modern real-time systems. (4 marks)

(b) Using the information regarding Jumbo Plc, state four (4) relevant financial statement assertions for non-current assets and suggest one (1) audit procedure for each financial statement assertion stated. (6 marks)

[Total: 20 Marks]

QUESTION THREE

You are a new Audit Manager in Wantipa Associates, a firm of ZiCA accountants and you have been assigned to the financial statements audit of Ngwee Ltd for the year 31 March 2022. The following information has come to your attention during your pre-audit meeting with the Finance Director of Ngwee Ltd.

Wantipa Associates were appointed auditors for Ngwee Ltd ten (10) years ago. The Engagement Partner has been lowballing and as a result has been able to provide Ngwee Ltd with lucrative other services.

During the year ended 31 March 2022, Ngwee Ltd designed and implemented an Information Technology (IT) system that generates information that is significant to Ngwee Ltd.'s accounting records. The Finance Director has requested Wantipa Associates to assist with the recruitment of four (4) Accounts Assistants who will undergo specialized training in the operation of the new IT system.

Depreciation has been identified as a significant matter in view of the massive disposals and acquisitions made during the year. In an effort to improve audit efficiency, Ngwee Ltd promised to provide the Audit Senior with a laptop. The Engagement Partner is happy that the audit will be completed on time. Wantipa Associates budgeted to procure laptops for all audit staff before the end of the year 2022.

The Board of Directors for Ngwee Ltd believes that audit costs would fall by 20% if Wantipa Associates also provided internal audit services. Wantipa Associates has received notification that it has been nominated to provide internal audit services to Ngwee Ltd.

Required:

(a) State three (3) advantages of professional codes of ethics. (3 marks)

(b) Identify and explain four (4) ethical threats in the audit of the financial statements for Ngwee Ltd and recommend the responses that should be made. (10 marks)

(c) Explain two (2) methods of obtaining audit evidence which can be used when auditing the depreciation figure in the financial statements of Ngwee Ltd for the year ended 31 March 2022. (4 marks)

(d) Discuss how analytical procedures can be used as substantive audit procedures to provide audit evidence on the accuracy of the depreciation figure in the financial statements for Ngwee Ltd. (3 marks)

[Total: 20 Marks]

QUESTION FOUR

You are the Audit Manager in charge of the final audit of the financial statements for Kasempa Plc which is nearing completion. The following two (2) matters have been brought to your attention:

Receivables balance:
There is a dispute between Kasempa Plc and one (1) of the major customers. It appears that the main reasons for the dispute could be teeming and lading fraud and cut-off problems. The new Audit Senior has no detailed experience in the audit of teeming and lading fraud and cut-off problems. The Engagement Partner has requested you to guide him.

Going concern:
Apart from collecting a seven (7) months' forecast from the period end, no other audit work has been performed on going concern. The new Audit Senior has requested for your guidance. After ten (10) years of performance levels well above the industry average, the current performance levels for Kasempa Plc are showing a downward trend. During the year under review, a new management was appointed to address some of the issues.

Required:

(a) With reference to receivables:

(i) Explain, using a suitable illustration, what is meant by teeming and lading fraud. (4 marks)

(ii) State the action that the auditors must take in view of the suspected teeming and lading fraud. (2 marks)

(iii) Recommend four (4) cut-off tests, which should be performed on the receivables balance for Kasempa Plc. (4 marks)

(b) Using the guidance given in ISA 570 (Revised) *Going concern*:

(i) State the objectives of the auditor regarding going concern. (3 marks)

(ii) Explain the actions which the auditors must take given that management of Kasempa Plc have only provided the auditors with a seven (7) months' forecast. (7 marks)

[Total: 20 Marks]

QUESTION FIVE

International Standards on Auditing (ISAs) are issued by the International Auditing and Assurance Standards Board (IAASB). Audits in the Republic of Zambia must be conducted in accordance with ISAs.

You are an Audit Manager in Soya Accountants and you are aware that ISA 705 (Revised) *Modifications to the opinion in the independent auditor's report* sets out different types of modified opinions. You have been assigned to review the suggested audit opinions for the following audit clients. In each case, assume management is not willing to make any necessary amendments.

Client one
An understatement of K220,000 has been identified in the inventory figure. This is considered to be immaterial to both the statement of profit or loss and the statement of financial position. A qualified audit opinion has been suggested.

Client two
The total amount of non-current assets has been erroneously recorded as K682 million, instead of K681 million. The misstatement is considered material but not pervasive. A disclaimer of opinion has been suggested.

Client three
A systems error was discovered in the integrated electronic point of sale (EPOS) systems for recording of all sales of goods. Revenues are overstated by K500,000. This is both material and pervasive to the financial statements. An adverse opinion has been suggested.

Client four
The audit team was unable to obtain sufficient appropriate audit evidence to support a foreign payables balance amounting to K1.2 million. The financial statements show profit before tax of K20 million and total assets of K254 million. A disclaimer of opinion has been suggested.

Required:

(a) State three (3) advantages of International Standards on Auditing. (3 marks)

(b) Define materiality and discuss its importance when forming an audit opinion. (4 marks)

(c) Explain the appropriateness of each of the four (4) suggested audit opinions. (13 marks)

[Total: 20 Marks]

END OF PAPER

CA 2.3 - AUDITING PRINCIPLES AND PRACTICE SUGGESTED SOLUTIONS

SOLUTION ONE

(a) **Corporate governance and Audit Committee's written terms of reference**

According to the Cadbury report (1992), corporate governance is defined as the system by which companies are directed and controlled.

The following are the responsibilities which should be included in the written terms of reference for the Audit Committee for Busanga Ltd:

(i) To review the company's risk management system.
(ii) To review the company's internal control.
(iii) To monitor and review the effectiveness of the company's internal audit function.
(iv) To monitor the integrity of the financial statements of the company and any formal announcements relating to the company's financial performance, reviewing significant financial reporting judgements contained in them.
(v) To make recommendations to the board, for it to put to the shareholders for their approval in general meeting, in relation to the appointment, reappointment and removal of the external auditor and to approve the remuneration and terms of engagement of the external auditors.
(vi) To develop and implement policy on the engagement of the external auditor to supply non-audit services.

(b) **Internal Audit Function**

(i) **Criteria used when evaluating the internal audit function**

ISA 610 (Revised) *Using the work of internal auditors* gives the following criteria which the external auditor must use when evaluating the internal audit function:

(i) The extent to which its objectivity is supported by its organizational status, relevant policies and procedures
(ii) The level of competence of the function
(iii) Whether the internal audit function applies a systematic and disciplined approach (including quality control).

(ii) **Evaluation of whether Masuku & Co. should use the work of the Internal Audit Function for Busanga Ltd**

The Internal Audit Function for Busanga Ltd has the following strengthens and weaknesses:

Strengths

- The Internal Audit Function reports to the Board of Directors. However, for the Internal Audit Function to more effective, it must report to the Audit Committee instead of the entire Board of Directors.
- The internal auditors are members of the Zambia Institute of Chartered Accountants (ZiCA). However, more information is required in order to appropriately evaluate the level of competence of the function given that there are different levels of ZiCA membership.
- The Internal Audit Function has appropriate quality control procedures and internal audit documentation.

Weaknesses

- Management has been too busy to act on the recommendations made by internal auditors.
- The Human Resource Department (HRD) oversees the employment decisions regarding internal auditors. However, in order to strengthen independence, those charged with governance must oversee employment decisions regarding internal auditors.

Conclusion

ISA 610 (Revised) states that the auditor shall not use the work of the internal auditor if the internal audit function is found to be lacking in any area. The Internal Audit Function for Busanga Ltd has some weaknesses and as such Masuku & Co. must not use the work of the Internal Audit Function. The Finance Director is an interested party and his views on the effectiveness of the Internal Audit Function may not be objective.

(c) **Deficiencies in the credit sales system for Busanga Ltd**

Deficiencies	Explanations
(1) Busanga Ltd only allows credit sales to government institutions	No assessment of credit worthiness is performed. Some government institutions may not have the capacity to pay and this could result in unnecessary lengthy legal battles.
(2) Any sales representative for Busanga Ltd raises a sales order	Without a designated senior staff, there is a possibility of confusion which may provide ground for fraudulent activities.
(3) The sales orders are not pre-numbered.	It is very difficult to check the completeness of sales orders and avoid unnecessary disputes.
(4) No-one checks the sales order	Errors and frauds may go unnoticed.

(5) The sales representative packs the required goods and raises a dispatch note	There is a failure in segregation of duties in allowing the sales representative to both pack the goods and raise a dispatch note. It is possible that the dispatch note could be replaced later in order to conceal any fraud in quantities dispatched.
(6) A consolidated invoice is sent by the marketing department at the end of the month to each government institution	Delayed invoicing has a negative impact on Busanga Ltd.'s cash flows. In the long run, Busanga Ltd.'s going concern status could become questionable.
(7) There is no credit limit	Government institutions could be abusing the credit facilities resulting in unnecessarily huge receivable balance. This could be beyond what Busanga Ltd can afford. In addition, financing cost for receivables is likely to be very high, and may significantly erode the margins.

(d) **Audit procedures for wages paid in cash:**

1. Arrange to attend the pay-out of wages to confirm that the official procedures are being followed.
2. Before the wages are paid compare payroll with wage packets to ensure all employees have a wage packet.
3. Confirm that no employee receives more than one wage packet by attending the pay-out.
4. Agree entries in the unclaimed wages book with the entries on the payroll.
5. Confirm that unclaimed wages are banked regularly by scrutinizing bank statements and matching to amounts in the unclaimed wages book.
6. Review the pattern of unclaimed wages in unclaimed wages book; variations may indicate failure to record.

(e) **Audit risks and recommend appropriate responses**

Audit risks	Explanations	Audit responses
(1) Inventories are susceptible to theft.	There is a risk that some inventories included in the financial statements could have been stolen and therefore do not exist. Hence, there is a possibility of the inventory balance being overstated.	Test internal controls over inventories. Attend inventory count and carry out appropriate test counts. Assign more experienced audit staff to the audit of inventories.
(2) Invoicing government institutions in arrears.	There is a risk of revenue being recorded in a wrong period. Hence, the revenue figure in the financial statements could be misstated.	For a sample of revenue entries recorded prior to the year end, agree the transactions as relating to pre year-end sales by inspecting the consolidated invoices and the other supporting

		documentation such as the dispatch notes.
(3) Management bonuses are reliant on sales performance.	Management has an incentive to manipulate performance, increasing the risk of revenue (sales) being overstated.	Check the application of the guidelines given in IFRS 15 *Revenue from contracts with customers.* For a sample of revenue figures recognized agree to relevant documentation e.g. invoices, dispatch notes etc.
(4) Large amounts of cash are collected and held prior to banking.	There is an increased risk of fraud or theft. It is possible that the amount of cash recorded in the financial statements could be wrong.	Perform/reperform a reconciliation of a sample of till records to actual bankings.
(5) Overreliance on overdraft facilities.	This may indicate going concern problems.	Review correspondence with the bank for any evidence of withdrawal or extension of overdraft facilities.

Definition and recommended substantive procedures

Definition of substantive procedures

(f) Substantive procedures are audit procedures performed to detect material misstatements at the assertion level. They are generally of two types:

1. Substantive analytical procedures
2. Tests of detail of classes of transactions, account balances and disclosures.

Recommended substantive procedures

- Obtain a bank reconciliation and a listing for the outstanding lodgments
- Cast both the bank reconciliation and the listing for the outstanding lodgments to confirm arithmetical accuracy
- Match the lodgments in the cashbooks and bank statements in order to verify the completeness of the listing for outstanding lodgments
- Agree the total for the listing for the outstanding lodgments to the amount shown on the bank reconciliation
- Verify by inspecting paying-in slips that outstanding lodgments are paid in prior to the year-end
- Review bank statements after the reporting date to check whether the outstanding lodgments have been credited.

SOLUTION TWO

(a) **Audit test data:**

(i) Audit test data consists of dummy data submitted by the auditor for processing by the enterprise's computer-based accounting system. The primary objective of audit test data is to test programmed controls. The auditor predicts the results of processing the dummy data and compares the prediction with the actual results.

Live audit test data is dummy data submitted by the auditor to be processed during a normal production run.

Dead audit test data is dummy data submitted by the auditor for processing during a special run separate from the normal cycle.

(ii) **Basic principle of using audit test data and tests of control:**

The basic principle of using audit test data is that if the program processes the audit test data correctly, then the logic of the program and the program coding works and will processes the actual data correctly.

The tests of control include:

- Submit invalid dummy purchase invoices (containing errors) of the value added tax (VAT) and the total figures for processing by the program for Kakumbi Ltd and check whether the purchase invoices are rejected as containing errors.
- Submit valid dummy purchase invoices (having no errors) for processing by the program for Kakumbi Ltd and check whether the purchase invoices are not rejected.

(iii) **Why audit test data is being used less as a computer assisted audit technique (CAAT):**

Test data is being used less as a computer assisted audit technique (CAAT) in modern real-time systems because of the possibility of corrupting data files which may need to be corrected thereafter. This is difficult with modern real-time systems, which often have built-in (and highly desirable) controls to ensure that data entered cannot be easily removed without leaving a mark.

(b) **Financial statement assertions and audit procedures:**

Completeness

- Compare assets in ledger to register
- Review repairs in general ledger

Existence

- Inspect assets

Accuracy, valuation and allocation

- Verify to valuation certificate
- Review valuation rates
- Verify material on self-constructed assets to invoice

Rights and obligations

- Inspect title deeds
- Examine invoices after the year-end

SOLUTION THREE

(a) **Advantages of professional codes of ethics:**

- Codes represent a clear statement that professionals are expected to act in the public interest, and act as a benchmark against which behavior can be judged. They should thus enhance public confidence in the professions.
- Codes emphasise the importance of professionals considering ethical issues actively and seeking to comply, rather than only being concerned with avoiding what is forbidden.
- The International Ethics Standards Board for Accountants (IESBA) code states that it can be applied internationally. Local difference are not significant
- Codes can include detailed guidance, which should assist ethical decision-making
- Codes can include explicit prohibitions if necessary
- Codes prescribe minimum standards of behavior that are expected.

(b) **Ethical threats and actions (safeguards):**

Ethical threats	Explanations	Actions (Safeguards)
(1) Long association with client	Wantipa Associates were appointed auditors for Ngwee Ltd ten (10) years ago. There could be familiarity threat due to a long or close relationship with Ngwee Ltd. The auditors could be too sympathetic to Ngwee Ltd.'s interests or to accepting of their work. This will impair objectivity.	Review the situation and if necessary: • Rotate senior staff • Obtain second partner reviews • Perform Independent (but internal) quality control reviews.
(2) Lowballing	The Engagement Partner has been lowballing and as a result has been able to provide Ngwee Ltd with lucrative other services. It is not considered ethically wrong to charge a low price for an audit in itself. This does not generally threaten independence.	Wantipa Associates must ensure that they carry out an audit of the quality demanded by auditing standards and that the "cut-price" audit fee does not call their independence into question.
(3) Recruitment of four (4) Accounts Assistants	The Finance Director has requested Wantipa Associates to assist with the recruitment of four (4) Accounts Assistants. This could create a self-interest threat. The independence of Wantipa Associates may be adversely affected. During the audit, Wantipa	The ethical threat is not significant given that Accounts Assistants are junior staff members. However, Wantipa Associates must still not make management decisions. The involvement could be limited to reviewing a shortlist of candidates.

	Associates may not appropriately assess the work of individuals they helped recruit.	
(4) Gifts and hospitality	Ngwee Ltd has promised to provide the Audit Senior with a laptop. This could negatively affect objectivity of the Audit Senior. The Audit Senior may fail to exercise appropriate levels of professional skepticism.	Given that the laptop is unlikely to be considered trivial and inconsequential, this offer must be refused. If the issue of the laptop is urgent, then Wantipa Associates must procure a laptop for the Audit Senior immediately.
(5) Provision of internal audit services	Wantipa Associates has received notification that it has been nominated to be internal auditor of Ngwee Ltd. This could create self-interest, familiarity and self-review threats. For example, it may be very difficult to question the work of internal auditors for fear of damaging Wantipa Associates' reputation.	Wantipa Associates must use personnel not involved in the audit and avoid assuming management responsibilities.

(c) **Main methods of obtaining audit evidence which can be used when auditing the depreciation figure**

- **Recalculation** – this consists of checking the mathematical accuracy of the workings for depreciation
- **Analytical procedures** – comparing the depreciation figure for the current year with the predicted (expected) amount.

(d) **Analytical procedures:**

A proof in total test on depreciation can be used as a substantive test (analytical procedure). In this test, the auditor will predict the expected charge for the year for depreciation by using Ngwee Ltd.'s accounting policy for depreciation and applying this to the brought forward figures for non-current assets from the prior year audited financial statements, factoring in additions and disposals for the year. The figure obtained can be compared to the charge in the draft financial statements to assess its reasonableness and accuracy.

SOLUTION FOUR

(a) **Receivables:**

(i) **Teeming and lading fraud:**

Teeming and lading involves an employee first stealing the cash receipts from a receivable (receivable 1) and not recording the receipt against the customer account. Then the employee receives more cash from another receivable (receivable 2) and allocates it against receivable 1 in order to conceal the stolen funds. Similarly, he or she then allocates monies from receivable 3 against amounts owed from receivable 2, and so on. By allocating the funds in this way, there is only an apparent time lag on posting the receipt of cash, rather than an obvious uncollected debt.

(ii) **Action to take:**

If auditors suspect teeming and lading has occurred, detailed testing will be required on cash receipts, particularly on prompt posting of cash receipts.

(iii) **Cut-off tests:**

- For a sample of sales invoices around the year-end, inspect the dates and compare with the dates of dispatch and the dates recorded in the ledger for application of correct cut-off.
- For sales returns, select a sample of returns documentation around the year-end and trace to related credit entries.
- Perform analytical procedures on sales returns, comparing the ratio of sales returns to sales.
- Review material after-date invoices, credit notes and adjustments and ensure that they are recorded correctly in the relevant financial period.

(b) **Going concern:**

(i) The **objectives** of the auditor are:

- To obtain sufficient appropriate audit evidence regarding, and conclude on, the appropriateness of management's use of the going concern basis of accounting in the preparation of the financial statements
- To conclude, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the entity's ability to continue as a going concern
- To report in accordance with ISA 570 (Revised).

(ii) **Actions to take:**

- Ask management to extend its assessment to at least 12 months from the date of the financial statements
- If the assessment is extended to at least 12 months from the date of the financial statements, discuss the assessment with management

- Inquire of management its knowledge of events or conditions beyond the period of the assessment that cast significant doubt on the entity's ability to continue as a going concern
- Evaluate management's assessment of the entity's ability to continue as a going concern
- Remain alert throughout the audit for evidence of events or conditions that may cast significant doubt on the entity's ability to continue as a going concern
- If management refuse to extend its assessment to at least 12 months from the date of the financial statements, discuss the issue with those charged with governance
- If the issue is still unresolved, a qualified opinion or a disclaimer of opinion in the auditor's report may be appropriate, because it may not be possible for the auditor to obtain sufficient appropriate audit evidence regarding the use of the going concern basis of accounting in the preparation of the financial statements.

SOLUTION FIVE

(a) **Main advantages of international standards on auditing (ISAs):**

- They increase public awareness of what an audit comprises and the work behind the production of an audit report
- They help to standardize the approach of all auditors to the common objective of producing an opinion
- They provide support for auditors in potential disputes with clients regarding the audit work necessary
- They give a framework for all audits around which a particular audit can be developed
- They assist the court in interpreting of the concept of 'due professional care' and may assist auditors when defending their work.

(b) **Materiality and its importance when forming an audit opinion:**

Materiality is an expression of the relative significance or importance of a particular matter in the context of the financial statements as a whole. A matter is material if its omission or misstatement would reasonably influence the economic decisions of users taken on the basis of the financial statements. Materiality depends on the size (value), nature or impact of an item.

Materiality is important when forming an audit opinion because modification of an audit opinion only applies to matters which are material. Hence, if a matter is immaterial, modification may not arise.

(c) **Audit opinions:**

Client one – the suggested modified audit opinion in the form of a qualified audit opinion can only apply where the understatement is material and not pervasive. In the case of client one, the understatement is immaterial and the appropriate audit opinion is an unmodified audit opinion.

Client two – the suggested modified audit opinion in the form of disclaimer of opinion can only apply where there is lack of sufficient appropriate audit evidence to support the overstatement of K1 million. However, in the case of client two, sufficient appropriate audit evidence is available and the overstatement is material but not pervasive. Hence, the appropriate audit opinion is a modified audit opinion in the form of a qualified audit opinion.

Client three – the suggested modified audit opinion in the form of an adverse opinion applies where a misstatement is material and pervasive. In the case of client three, the overstatement in revenue is also both material and pervasive. Hence, the suggested modified audit opinion in the form of an adverse audit opinion is appropriate.

Client four – the suggested modified audit opinion in the form of disclaimer of opinion can only apply where there is lack of sufficient appropriate audit evidence to support the foreign payable balance and this is considered material and pervasive. In the case of client four, the foreign payable balance represents 0.47% (K1.2/K254 X 100%) of the total assets. This is immaterial to the statement of financial position. The suggested modified audit opinion is therefore inappropriate. An unmodified audit opinion seems to be more appropriate.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ZAMBIA APPLICATION ADVANCED DIPLOMA IN ACCOUNTANCY

CA 2.4: TAXATION

THURSDAY 15 JUNE 2023

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

INSTRUCTIONS TO CANDIDATES

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

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

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

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

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

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

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

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

8. Present legible and tidy work.

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

10. A Taxation table is provided from page 2 to page 6 on the question paper.

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

TAXATION TABLE

Income Tax

Standard personal income tax rates

Income band	Taxable amount	Rate
K0.01 to K57,600	first K57,600	0%
K57,601 to K81,600	next K24,000	20%
K81,601 to K106,800	next K25,200	30%
Over K106,800		37.5%

Income from farming for individuals

K0.01 to K57,600	first K57,600	0%
Over K57,600		10%

Company income tax rates

On income from manufacturing and other	30%
On income from farming	10%
On income from mineral processing	30%
On income from mining operations	30%
On income of Banks and other Financial Institutions	30%

Mineral Royalty

Mineral Royalty on Copper

On incremental value in each norm price range	Mineral royalty rate
Less than US$4,000	4.0% of norm value
From US$4,000 but less than US$5,000	6.5% of norm value
From US$5,000 but less than US$7,000	8.5% of norm value
US$7,000 and above	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 and up K800,000	4%

Rental income Tax

Annual Rental income

K0.01 to K12,000	0%
K12,001 to K800,000	4%
On income above K800,000	12.5%

Presumptive tax for transporters

Seating capacity	**Tax per annum**	**Tax per quarter**
	K	K
Less than 12 passengers and taxis	1,080	270
From 12 to 17 passengers	2,160	540
From 18 to 21 passengers	4,320	1,080
From 22 to 35 passengers	6,480	1,620
From 36 to 49 passengers	8,640	2,160
From 50 to 63 passengers	10,800	2,700
From 64 passengers and over	12,960	3,240

Property transfer tax

Rate of tax on realised value of land, land and buildings and shares	5%
Rate on realised value of intellectual property	5%
Rate of tax on realised value on a transfer or sale of a mining right	10%
Rate of tax on realised value on a mineral processing licence or an interest in the mineral processing licence;	10%

Value Added Tax

Registration threshold	K800,000

Standard Value Added Tax Rate (on VAT exclusive turnover) 16%

Customs and Excise duties on used motor vehicles

	Aged 2 to 5 years		Aged 5 years and over	
Motor vehicles for the transport of ten or more persons, including the driver	**Customs duty K**	**Excise duty K**	**Customs duty K**	**Excise duty K**
Sitting capacity of 10 but not exceeding 14 persons including the driver	17,778	22,223	8,889	11,112
Sitting capacity exceeding 14 but not exceeding 32 persons	38,924	0	13,840	0
Sitting capacity of 33 but not exceeding 44 persons	86,497	0	19,462	0
Sitting capacity exceeding 44 persons	108,121	0	43,248	0

	Aged 2 to 5 years		Aged 5 years and over	
Motor cars and other motor vehicles principally designed for the transport of persons including station wagons and racing cars	**Customs duty**	**Excise duty**	**Customs duty**	**Excise duty**
	K	**K**	**K**	**K**
Sedans				
cylinder capacity not exceeding 1000 cc	12,490	10,824	7,136	6,185
Cylinder capacity exceeding 1000 cc but not exceeding 1500 cc	16,058	13,917	8,564	7,422
Cylinder capacity exceeding 1500 cc but not exceeding 2500 cc	16,545	21,508	8,423	10,950
Cylinder capacity exceeding 2500 cc but not exceeding 3000 cc	18,049	23,463	10,528	13,687
Cylinder capacity exceeding 3000 cc	22,561	29,329	12,032	15,642
Hatchbacks				
cylinder capacity not exceeding 1000 cc	10,705	9,278	7,136	6,185
Cylinder capacity exceeding 1000 cc but not exceeding 1500 cc	14,274	12,371	8,564	7,422
Cylinder capacity exceeding 1500 cc but not exceeding 2500 cc	15,041	19,553	8,423	10,950
Cylinder capacity exceeding 2500 cc but not exceeding 3000 cc	16,545	21,508	10,523	13,687
Cylinder capacity exceeding 3000 cc	19,553	25,419	12,032	15,642
Station wagons				
cylinder capacity not exceeding 2500 cc	16,545	21,508	9,024	11,731
Cylinder capacity exceeding 2500 cc but not exceeding 3000 cc	18,049	23,463	13,357	17,598
Cylinder capacity exceeding 3000	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

	Aged 2 to 5 years		Aged 5 years and over	
Cylinder capacity exceeding 3000 cc	28,577	37,150	18,049	23,463
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)

Kalindawalo Plc is a company engaged in manufacturing operations which is listed on the Lusaka Securities Exchange and 45% of its ordinary shares are held by indigenous Zambians.

The summarised statement of profit or loss for the company for the year ended 31 December 2023 is presented below:

	Notes	K	K
Gross profit			80,261,380
Other income:			
Dividends (net)		704,500	
Management fees(net)		646,000	
Profit on disposal if buildings		820,000	
Rental income (gross)	(1)	1,800,000	
			3,970,500
			84,231,880
Expenses:			
Depreciation		675,000	
Impairment losses on non-current assets		450,000	
Development expenditure written off		399,000	
Irrecoverable debts expense	(2)	370,600	
Staff costs	(3)	48,839,000	
Entertainment expenses	(4)	818,500	
General operating expenses	(5)	9,355,300	
			(60,907,400)
Profit for the year			23,324,480

The following additional information is available:

Note 1: Rental income

The rental income was generated from letting out property on a commercial basis. The amount shown was received evenly during the tax year 2023.

Note 2: Irrecoverable debt Expense

	K		K
Trade debts written off	377,500	Balance b/f	
Loans to customers written off	124,200	- Specific provision	186,600
		- General provision	210,400
Balances c/d		Trade debts recovered	160,000
- Specific provision	309,500	Staff's loans recovered	250,000

- General Provision	366,400	Profit or loss	370,600
	1,177,600		1,177,600

Note 3: Staff costs

These comprised employee's salaries of K34,851,000, staff gratuities paid of K7,600,000, employees pensions paid of K5,700,000, employee's professional subscriptions of K223,000 and employees training expenses of K465,000.

Included within staff salaries are the gross earnings for the Chief Executive Officer of K1,080,000 who is accommodated in a company owned house for which he does not pay any rent.

Note 4: Entertainment expenses

These included entertainment expenses for the company's external auditors of K167,500, staff refreshments of K156,000, gifts of Christmas shopping vouchers for employees (worth K2,000 per employee) totalling K160,000, gifts of Kalindawalo plc shopping vouchers given to customers (worth K300 per customer) totalling K210,000 and new year party for senior management of K125,000.

Note 5: General operating expenses

These comprised marketing expenses K823,500, a speeding fine for the Marketing Director whilst travelling for business purposes of K3,000, unrealised foreign exchange losses of K451,800, audit fees of K385,000, and a donation of K950,000 to approved public benefit organisations. The remaining balance represents general allowable business expenses.

Note 6: Implements, plant and machinery.

At 1 January 2023, the company held the following implements, plant and machinery:

Asset	Period of ownership as at 1 January 2023	Original cost (VAT Exclusive) K
Toyota Land Cruiser GX-R (3,300cc)	4 years	1,240,000
Volvo Delivery Trucks	5 years	3,560,000
General Plant	3 years	5,500,000
Manufacturing equipment	3 years	8,600,000
Office equipment	6 years	850,000
Pool cars (1,800cc)	2 years	800,000

The Toyota Land Cruiser is used on a person to holder basis by the Chief Executive Officer of the company whose private use of the car is 40%.

During the year the company sold the office equipment for K92,800 VAT (inclusive) and the pool cars for K580,000 (VAT inclusive).

There were no acquisitions of implements, plant or machinery in the tax year 2023.

Note 7: Buildings.

At 1 January 2023, the company held a building which was constructed at a cost of K15,000,000 (VAT exclusive) and brought into use in the year 2021. The total cost of constructing the building comprised the following:

	K
Cost of land	2,500,000
Factory	8,000,000
Showroom	3,000,000
Staff welfare facilities	1,500,000
Total	15,000,000

On 1 January 2023, the company sold old administration offices which were acquired ten (10) years ago at a cost of K2,320,000 (VAT inclusive) comprising land with a cost of K696,000 (VAT inclusive) with the remaining cost being attributed to the administration offices. The property was sold to a real estate developer for proceeds of K9,280,000 (VAT inclusive) with K1,740,000 (VAT inclusive) of the proceeds being attributed to the land.

Note 8: Provisional income tax paid

The amount of provisional income tax paid by the company during the year amounted to K4,900,250.

Required:

(a) Explain how the rental income generated by the company was assessed to tax in the tax year 2023 and compute the tax arising, stating how it was paid.
(4 marks)

(b) Prepare a computation of the company's capital allowances for the tax year 2023 in respect of:

(i) Buildings (8 marks)

(ii) Implements, plant and machinery (11 marks)

(c) Calculate the tax adjusted business profit for Kalindawalo plc for the tax year 2023.
(12 marks)

(d) Calculate the Company income tax payable by Kalindawalo plc for the tax year 2023.
(5 marks)

[Total: 40 Marks]

SECTION B

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

<u>QUESTION TWO</u>

Joe Kabililo had been employed by FBN Limited as a Sales Manager until 1 August 2023, when he was declared redundant. He immediately set up a business running a retail trade generating a final taxable profit for the period ended 31 December 2023 of K403,624. He would like to know the factors used to differentiate employees from self-employed persons.

Joe kabilo was entitled to the following conditions of service during the period of his employment with FBN Ltd.:

(1) Annual basic salary of K270,000 payable monthly in arrears.
(2) Transport allowance K5,625 per month
(3) Education allowance per annum per child K30,000. Joe Kabililo is married and has two (2) school going children within Ndola on the Copperbelt Province where he lives.
(4) On being declared redundant on 1 August 2023, Joe received the following amounts:

	K
Accrued leave pay	7,900
Repatriation pay	26,000
Salary in lieu of notice	136,000
Accrued service bonus	23,400

(5) Joe was accommodated in a company owned house throughout his period of employment which had a market value of K550,000. If the company had let out the house on a commercial basis, the company would have received monthly rentals of K4,500. During his period of employment in the tax year 2023, the company paid wages for workers employed by Joe at his residence. These include domestic servant wages of K1,500 per month and security guard wages of K1,300 per month.

(6) Joe paid interest of K600 per month on a personal bank loan and professional subscriptions relevant to the duties of his employment of K3,500 during the tax year 2023.

(7) Pay As You Earn of K62,800 was deducted from his emoluments in the tax year 2023.

Other income

Joe received the following additional income during the tax year 2023:

	K
Fixed deposit interest	3,500
Management fees	35,700
Dividends from LuSE listed companies	29,750
Income from letting of property	60,000
Copyright royalties	46,750
GRZ bond interest	52,700

The above figures represent the actual amounts received by Joe in each case.

Required:

(a) Explain any three (3) factors used to distinguish employees from self-employed persons. (6 marks)

(b) Calculate the income tax payable by Joe Kabililo for the tax year 2023. **You should clearly indicate in your computation, using a zero (0), any benefits provided to Joe from employment in the tax year 2022, which are not taxable.** (14 marks)

[Total: 20 marks]

<u>QUESTION THREE</u>

The following information relates to four (4) Zambian resident individuals:

(1) Mr Chitambala is a commercial farmer who is also employed on a part-time basis as an agronomist. His final taxable farming profits for the 2023 tax year, was K366,000, from an annual turnover K855,000 and his gross earnings from his part time employment was K50,000. He also received a sitting allowance as a councillor of K2,500 per month.

(2) Mr Ng'andu lets out property for commercial purposes. In the tax year 2023, he let out two (2) residential houses receiving gross monthly rentals of K5,000 from each house per month. He incurred maintenance expenses of K1,200 per month on each house.

He also let out a block of ten (10) retail shops which he owns at a famous shopping mall receiving gross monthly rentals of K8,000 for each shop per month. He incurred utility bills of K500 for each shop per month and other maintenance costs for the shops amounted to K800 per shop per month.

He additionally let out four (4) boarding houses in Lusaka. Each of the boarding houses has twelve (12) student bed spaces, and he charges K1,500 per bed space per month. Property maintenance expenses relating to each boarding house were K1,000 per month. All of the boarding houses were let out throughout the tax year 2023.

(3) Mrs Chola is self-employed and owns shops which sells construction material, generating annual turnover which averages K648,000 per year and is earned evenly throughout the year. The statement of profit or loss for the business for the tax year 2023, is shown below:

MRS CHOLA'S
STATEMENT OF PROFIT OR LOSS FOR THE YEAR ENDED 31 DECEMBER 2023

	K	K
Sales		648,000
Cost of sales		(246,800)
Gross profit		401,200
Less expenses		
Rent for business premises	36,000	
Mrs Chola's salary	96,000	
Employee's salaries	67,800	
Gifts to customers costing K300 per customer	3,000	
Theft of goods by employees	2,600	
Miscellaneous business expenses	68,400	
		(273,800)
Net profit		127,400

Required:

(a) Explain, with reasons, which of the above individuals will be required to pay provisional income tax and which ones will not, stating how the income generated by each person will be assessed to tax in the year 2023. (7 marks)

(b) Compute the amount of tax paid by each of the following persons on the income they generated in the tax year 2023.

(i) Mr Chitambala (4 marks)
(ii) Mr Ng'andu (5 marks)
(iii) Mrs Chola (4 marks)

[Total: 20 Marks]

QUESTION FOUR

You are employed in the tax department of a firm of Chartered Accountants and your Tax Manager has asked you to prepare notes to be used in the orientation of newly recruited trainee accountants on the following topics:

(i) The residence of individuals in Zambia for tax purposes.

(ii) Specific threats to compliance with the IFAC code of ethics for professional accountants.

The Tax Manager has provided you with the following information relating to one of the new clients Mr. Thomas Pablo who is seeking tax advice from your firm.

Thomas Pablo was born in 1979, in The United States of America (USA) and has always lived in USA, a country where he has been domiciled and was working for JPN International, a company which was incorporated and is resident in USA.

On 15 October 2023, JPN International acquired a 100% holding in a Zambian resident company known as ZPN Zambia Limited and on 1 December 2023, Thomas was promoted by JPN International and appointed to the position of Chief Executive Officer of ZPN Zambia Limited, on a four (4) year contract commencing on 1 December 2023. Thomas was expected to relocate back to USA soon after the expiry of his four (4) year contract.

Thomas arrived in Zambia to take up his position on 1 December 2023 and was entitled to an annual gross salary of K726,000. In addition to his emoluments, he also received consultancy fees of K38,250 (net) from Zambian sources. And K21,400 was deducted as PAYE for year ended 2023.

Thomas holds investments in USA which include shares in American resident companies and a fixed deposit account with American commercial bank. The currency of USA is known as the American dollar (US$).

On 31 December 2023, the following investment income was credited to his Zambian bank account:

Fixed deposit interest from Bank of America	US$2,500
Dividends from shares in American companies	US$2,100

The amount of fixed deposit interest account was net of withholding tax at the rate of 20% deducted in US and the amount of dividends was net of withholding tax at the rate of 30% deducted in US.

There is no double taxation agreement between Zambia and USA. However, a tax credit is available for any foreign tax paid in US when computing the Zambian income tax payable. An exchange rate of K18.60 per US$1 should be applied where applicable.

Thomas Pablo wishes to know whether he will be liable to Zambian income tax on any of his foreign investment income.

Required:

(a) Prepare notes to be used in the training workshop which:

(i) Explains the criterion which is used to determine whether an individual is resident and ordinarily resident in Zambia for income tax purposes. (3 marks)

(ii) Explains how the provision of taxation services can create self-review and an advocacy threats (4 marks)

(b) Explain the reasons why Thomas Pablo will be subjected to Zambian income tax in the tax year 2023. (2 marks)

(c) Calculate the amount of income tax payable by Thomas Pablo for the tax year 2023. (11 marks)

[Total: 20 Marks]

QUESTION FIVE

ZUPCO Limited is a VAT registered Zambian resident company which manufacturers carbonated soft drinks and you have been provided with the following information relating to the month of June 2023:

(1) Gross sales for the month were K1,057,800. These included exempt supplies amounting to K209,000 and zero-rated supplies amounting to K289,500. The remainder of the sales were all standard rated.

(2) Gross purchases for the month were K396,000. These included exempt purchases amounting to K69,600. The remainder of the purchases were all standard rated. The standard rated purchases included purchases of K20,000 from suppliers who are not registered to VAT purposes.

(3) Credit notes issued in respect of standard rated sales returns were K92,800 (VAT inclusive), whilst credit notes received in respect of standard rated purchases returns from vendors who are registered for VAT were K150,800 (VAT inclusive).

(4) An invoice from a receivable amounting to K115,000 was written off on 30 June 2023. Payment for the original sales was due by 1 July 2022.

(5) Standard rated operating expenses for month included the following:

	K
Entertaining suppliers (VAT inclusive)	44,000
Advertising expense (VAT inclusive)	32,480
Motor vehicle insurance (VAT inclusive)	35,960
General overheads	27,560
	140,000

(6) The company purchased a motor van at a cost K153,120 (VAT inclusive) and a Toyota Harrier car at a cost of K120,400 (VAT inclusive). All vehicles are used to make taxable and exempt supplies in proportion to sales.

(7) Unless stated otherwise all of the above figures are exclusive of VAT.

Required:

(a) Calculate the amount of VAT payable or refundable for the month of June 2023. You should indicate by the use of a zero (0) all items on which VAT is not chargeable or claimable. (13 marks)

(b) ZAPCO company imported a second hand thirty five (35) Seater Rosa bus from China in July 2023, to be used in the transportation of its employees. The list price of the bus was $16,000 free on board. The company paid insurance of $2,300 and freight of $3,200 in transit to the port of Dare salaam. Other incidental costs incurred by the company up to the point of entry into Zambia were $1,800.

The coach arrived at the Chirundu border post on 16 January 2023 and all import taxes were paid by the company on that date. The coach was manufactured in 2016.

The commissioner General provided an exchange rate of K18.80 per $1.

Required:

(i) Calculate the Value for Duty Purposes of the coach. (3 marks)

(ii) Calculate the import taxes paid on the importation of the coach. (4 marks)

[Total: 20 Marks]

END OF PAPER

CA2.4 TAXATION SUGGESTED SOLUTIONS

SOLUTION ONE

(a) Income from letting of property is subjected to rental income tax, and therefore the rental income generated by the company was assessable under rental income tax.

The amount of rental income tax arising each month in the tax year 2023, will be computed as shown below:

	K
Gross Rental income	1,800,000
Rental income Tax	
On first K12,000 x 0%	0
On next (K800,000 – K12,000) x 4%	31,520
On excess (K1,800,000 – K800,000) x 12.5%	125,000
	156,250
Rental income tax per month(K156,250/12)	13,043

The monthly amount of rental tax of K13,043 should have been paid by Kalindawalo plc by the 14th day following the end of each month throughout the tax year 2023.

(b) (i) QUALIFYING COST

	K
Total Cost	15,000,000
Less: cost of land	(2,500,000)
Total construction cost	12,500,000
10% x K10m	1,250,000

The cost of the showroom of K3m exceeds K1,250,000 and therefore will be classified as commercial building and not an industrial building.

COMPUTATION OF CAPITAL ALLOWANCES ON BUILDINGS

	K
Factory	
Wear and tear allowance	
(Factory K8,000,000 x 5%)	400,000
Showroom	
Wear and tear allowance	
(2% x K3,000,000)	60,000
Staff welfare facilities	
Wear and tear allowance	
(5% x K1,500,000)	75,000
Old Administration buildings	

Cost		
(K2,320,000 -K696,000) x 25/29	1,400,000	
Less Total allowances		
(K1,400,000 x 2%) x 10 yrs	(280,000)	
ITV b/f	1,120,000	
Proceeds restricted to cost	1,400,000	
Balancing charge	(280,000)	(280,000)
		255,000

(ii) COMPUTATION OF CAPITAL ALLOWNACES ON IPMs

	K	K
Toyota Landcruiser		
Wear & tear allowance		
(K1,240,000 x 116%) x 20%		287,680
Volvo Delivery trucks		
Wear & tear allowance		0
General plant		
Wear & tear allowance		
(K5,500,000 x 25%)		1,375,000
Manufacturing equipment		
Wear & tear allowance		0
Office equipment		
ITV b/f	0	
Proceeds (K92,800 x 25/29)	80,000	
Balancing charge	(80,000)	(80,000)
Pool cars		
Cost (K800,000 x 116%)	928,000	
Less Total allowances		
(K928,000 x 20% x 2yrs)	371,200	
ITV b/f	556,800	
Proceeds	580,000	
Balancing charge	(23,200)	(23,200)
		1,559,480

(c) COMPUTATION OF TAXABLE PROFITS

	K	K
Profit for the year		23,324,480
Add:		
Depreciation	675,000	
Impairment losses on non-current assets	450,000	
Development expenditure written off	399,000	
Increase in general provision		
(K366,400-K210,400)	156,000	
Loans to customers written off	124,200	
Accommodation benefit		
(37.5% x K1,080,000)	405,000	
Entertaining external auditors	167,500	

Staff refreshments	156,000	
Customers shopping vouchers		
(K210,000/K300 x K200)	140,000	
Marketing Director's Speeding fine	3,000	
Unrealised foreign exchange losses	451,800	
Personal to holder motor car benefit	48,000	
		3,175,500
		26,499,980
Less		
Staff loans recovered	250,000	
Dividends (net)	704,500	
Management fees(net)	646,000	
Profit on disposal if buildings	820,000	
Rental income (gross)	1,800,000	
Capital allowances on IPMs	1,559,480	
Capital allowances on building	255,000	
		(6,034,980)
Tax adjusted business profit		20,465,000

(d) KALINDAWALO PLC
COMPANY INCOME TAX COMPUTATION FOR THE TAX YEAR 2023

	K
Taxable profits	20,465,000
Management fees (K646,000 x 100/85)	760,000
	21,225,000
Company income Tax	
(30%-5%=25% x K21,225,000)	5,306,250
Less tax already paid	
WHT on Management fees	(114,000)
Provisional income Tax	(4,900,250)
Company income tax payable	292,000

SOLUTION TWO

(a) The following are factors the Zambia Revenue Authority use to establish whether an individual is an employee or self-employee:

(i) Work performance: Employees must perform the duties assigned to them themselves while the self-employed may hire other people to perform the work for them. If a person does not have a right to hire helpers, that is likely to lead to the conclusion that there is employment.
(ii) Control: The work of an employee is controlled by the employer who will normally stipulate working hours, the place at which the duties are to be performed, how the work is to be performed and other conditions. A self-employed person will decide when to perform the duties and how to perform them.
(iii) Payment and Financial risk: Employees are paid an agreed salary on a monthly or weekly basis and incur no form of financial risk. Self-employed persons are normally paid a proportion of the contract price based on the amount of work performed, and they will also bear full financial risk of their business.
(iv) Place of Work: Employees will normally be told where the duties are to be performed from; which is at the employer's premises or at the premises of the client. Self-employed persons will perform the duties at the place of their choice. If the person performing duties can only do so at the employer's chosen premises, then that person is an employee.

(v) Tools and Equipment: An employer will provide the tools and equipment which the employees are to use. In certain types of employments, the employees will normally be required to provide their own tools and equipment. Self-employed individuals will provide their own tools and equipment.
(vi) Correction of Work: Employees will normally rectify any faulty work during the normal working hours and they will still be paid for that extra work. Self-employed persons will rectify any faulty work outside the contract time and they will not be paid for extra work.
(vii) Engagement and Dismissal: The employer will take on and dismiss employees; the employer will have the right or power to terminate the contracts of employment by giving the employees the appropriate notice. A self-employed person will normally enter into a contract with a client specifying the beginning and the end.
(viii) Exclusivity: Employees will normally have only one employer while a self-employed person will normally have wider range of clients.
(ix) Insurance: Employers will normally provide insurance to cover for the actions of the employees. Self-employed persons will have to provide for their own insurance needs.

(b) JOE KABILILO
PERSONAL INCOME TAX COMPUTATION FOR THE TAX YEAR 2023

	K	K
Earned income		
Business profit		403,624
<u>Emoluments from employment</u>		
Basic pay (K270,000 X 7/12	157,500	
Transport allowance (K5,625 X 7)	39,375	

Education allowance (K30,000 X 7/12 X 2)	35,000	
Domestic servant allowance (K1,500 X 7)	10,500	
Security guard allowance (K1,300 X 7)	9,100	
Accrued service bonus	23,400	
Repatriation pay	0	
Accrued leave	7,900	
Accommodation benefit	0	
Salary in lieu of notice	0	
		282,775
		686,399
Investment income		
Copyright royalties		
(K46,750 x 100/85)	55,000	
Management fees		
(K35,700 x100/85)	42,000	
		97,000
		783,399
Less:		
Professional subscriptions		(3,500)
Taxable income		779,899
Income tax:		
On First K57,600 X 0%		0
On Next K24,000 X 20%		4,800
On Next K25,200 X 30%		7,560
On excess K673,099 X 37.5%		252,412
		264,772
Less		
WHT on Copyright royalties		
(K55,000 x 15%)		(8,250)
WHT on management fees		
(K42,000 x 15%)		(6,300)
PAYE		(62,800)
Final income tax payable		187,422

SOLUTION THREE

(a) The status of the various taxable persons is as follows:

(i) Mr Chitambla will be required to pay provisional income tax on his taxable profit from farming since this income for the year will exceed K57,600 and that income is not in the form of emoluments from employment that are taxable under the Pay As You Earn system.

However, he will not be required to pay provisional income tax on his income from part time employment as this constitutes income in the form of emoluments from employment. Income tax on the emoluments from employment is chargeable under the Pay As You Earn system.

Mr Kafukula will also not be required to pay provisional income tax on the sitting allowance as a councilor as this income is exempt from tax.

(ii) Mr Ng'uni will not be required to pay provisional income tax because all of his income is from letting out of real property. Income from letting of property is subjected to rental income tax.

(iii) Mrs Chola will not be required to pay provisional income tax because the annual turnover from her business is below K800,000. Provisional income tax applies to businesses generating annual turnover over K800,000.

Mrs Chola will taxable under turnover tax based on the gross turnover arising from his business.

(b) (i) MR CHITAMBALA'S
PERSONAL INCOME TAX COMPUTATION FOR THE TAX YEAR 2023

	Total	Non farming income	Farming income
Non-farming income	K	K	K
Employment income	50,000	50,000	-
Farming profits	366,000	-	366,000
	416,000	50,000	366,000
Less tax-free income	(57,600)	(50,000)	(7,600)
	358,400	0	358,400
Income tax on farming income			
K358,400 x 10%			35,840

(ii) MR NG'ANDU
COMPUTATION OF RENTAL INCOME TAX PAYABLE FOR THE TAX YEAR 2023

Gross Rental income	K
Residential houses	
(K5,000 x 12) x 2 houses	120,000
Retail shops	
(K8,000 x 12) x 10 shops	960,000
Boarding houses	

(K1,500 x 12 spaces) x 12month x 4	864,000
	1,944,000
Rental income Tax	
On first K12,000 x 0%	0
On next (K800,000 – K12,000) x 4%	31,520
On excess (K1,944,000 – K800,000) x 12.5%	143,000
	174,520
Rental income tax per month(K174,520/12)	14,543

(iii) MRS CHOLA
COMPUTATION OF TURNOVER TAX PAID IN THE TAX YEAR 2023

Monthly Turnover	K
(K648,000/12)	54,000
Turnover Tax	
On first K1,000 x 0%	0
On excess (K54,000 - K1,000) x 4%	2,120
	2,120
Total turnover tax for the year	
(K2,120 x 12)	25,440

SOLUTION FOUR

(a) (i) An individual is held to be resident in Zambia if they are physically present in Zambia for a period of not less than 183 days in a charge year.

Individuals who normally live in Zambia are resident and ordinarily resident in Zambia.

Individuals who come to Zambia with the intention of remaining here for more than 12 months are deemed to be resident and ordinarily resident in Zambia from the date of arrival.

Individuals may be resident in Zambia for only one tax year if they do not show any intention of remaining here for a relatively long period of time.

(ii) A self-review threat may occur when a member has to review work that they have previously done. It may be difficult for that member to re-evaluate their own previous judgements objectively, or identify any defects in their work for fear of receiving a reprimand, ruining their reputation or even losing their job.

An advocacy threat can occur if the member is asked to promote or represent their client in some way. In this case, the member would likely be biased in favour of the client and therefore his objectivity may be compromised.

(b) An individual is liable to Zambian income tax if that individual is resident and/or ordinary resident in Zambia, or if the individual has generated income from Zambian sources or income deemed to be from Zambian source.

Thomas Pablo will be required to pay Zambia income because he will be regarded as resident and ordinary resident in the tax year 2023.

This because, even though he was not physically president in Zambia for a period of at least 183 days in the tax year 2023, having only stayed in Zambia for 30 days in the charge year, he has the intention of staying in Zambia for the period expected to exceed 12 months having taken up the position as Chief Executive officer in a Zambian company on a contract that will last for forty eight (48) months. He will therefore be regarded as resident and ordinary resident in Zambia from the time of his arrival in Zambia and as such liable to Zambian income tax.

(c) THOMAS PABLO
PERSONAL INCOME TAX COMPUTATION FOR THE TAX YEAR 2023

	K	K
Income from Zambian sources		
Emoluments (K726,000 x 1/12)		60,500
Consultancy fees (K38,250 X 100/85)		45,000
		105,500

Income from foreign sources

Fixed deposit interest (D$2,500 X 100/80 X K18.60)	58,125	
Dividends (D$ 2,100 X 100/70 X k18.60)	55,800	
		113,925
Taxable income		219,425
Income tax:		
On First K57,600 X 0%		0
Next K24,000 X 20%		4,800
Next K25,200 X 30%		7,560
Balance K112,625 X 37.5%		42,234
		54,594
Less:		
PAYE		(21,400)
WHT- K45,000 X 15%		(6,750)
Double taxation relief on:		
Foreign fixed deposit interest (W1)	11,625	
Foreign dividends (W2)	13,883	
		(25,508)
Income tax payable		936

SOLUTION FIVE

(a) ZUPCO Ltd

COMPUTATION OF VAT PAYABLE FOR THE MONTH OF JUNE 2023

	K	K
<u>Output VAT</u>		
Standard rated sales		
(K1,057,800 – K209,000 –K289,500) X 16%)	89,488	
Less Sales returns (K92,800 X 4/29)	(12,800)	
		76,688
Zero-rated sales (289,500 X 0%)		0
Exempt sales (No VAT chargeable)		0
		76,688
<u>Input VAT</u>		
Standard rated purchases		
(K396,000-K69,600-K20,000=K306,400 X 16%)	49,024	
Less: purchases returns (K150,800 X 4/29%)	(20,800)	
	28,224	
Exempt purchases	0	
Bad debt relief	0	
Entertaining suppliers	0	
Advertising (K32,480 X 4/29) x 80%	4,480	
Insurance (K35,960 X 4/29) x 80%	4,960	
General overheads (K27,560 X 16% X 80%)	3,528	
Toyota Harrier (Irrecoverable)	0	
Motor van (K153,120 X4/29) x 80%	16,896	
		(58,088)
VAT Payable		18,600

WORKINGS

(1) COMPUTATION OF THE RECOVERABLE NON ATTRIBUTABLE INPUT VAT

	K
Gross sales	1,057,800
Less standard rated sales returns	
(K92,800 x 4/29)	(12,800)
Total Supplies	1,045,000
Less Exempt supplies	209,000
Taxable supplies	836,000

$$\text{Recoverable non attributable in put VAT} = \frac{\text{Taxable supplies}}{\text{Total Supplies}} \text{ x } 100\%$$

$$= \frac{\text{K836,000(W)}}{\text{1,045,000 (W)}} \text{ x } 100\%$$

=80%

(b) (i) COMPUTATION OF VALUE FOR DUTY PURPOSES (VDP)

	$
Purchase price	16,000
Insurance charges	2,300
Freight charges	3,200
Other incidental costs	1,800
CIF	23,300
VDP (K23,300 X K18.80)	K438,040

(ii)

	Value	Taxes
	K	K
VDP	438,040	
Customs duty	19,462	19,462
	457,502	
Excise duty	0	0
	457,502	
VAT @ 16%	73,200	73,200
Surtax	2,000	2,000
	532,702	
Total import taxes paid		94,662

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ZAMBIA APPLICATION ADVANCED DIPLOMA IN IN ACCOUNTANCY

CA 2.5: FINANCIAL MANAGEMENT

FRIDAY 16 JUNE 2023

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

INSTRUCTIONS TO CANDIDATES

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

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

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

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

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

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

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

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

8. Present legible and tidy work.

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

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

SECTION A

This question is compulsory and must be attempted.

<u>QUESTION ONE</u> – (COMPULSORY)

Arura Plc is considering an investment in new equipment which will cost K2.5 million and generate profit before tax and depreciation of K450,000 per annum in real terms for five (5) years. The investment will require working capital of K150,000 in real terms from the start of the first year.

Inflation is expected to be 11% per annum on all operating cash flows and working capital for the period under review. At the end of the fifth year, the working capital would be released in cash back to the company.

The company pays corporate tax at the rate of 30% per year. Tax is payable in the year profits are earned. Tax relief is available on capital expenditure at the rate of 20% on a reducing balance basis. The company also depreciates its plant and equipment on reducing balance basis. The first claim would be made in the first year. The equipment is sold at the written down value at the end of the fifth year. Assume that all cash flows occur at the end of the year except the purchase of the new equipment which occurs at the beginning of the year.

The company's long term capital structure includes K0.8 million ordinary shares issued at par value of K5 each, reserves of K6.38 million and K10 million 5% loan notes with a par value of K100 each.

The current cum-dividend market value of shares is K55 and the current cum-interest market value of loan notes is K80. A dividend of K8 per share has just been paid on the shares. Dividends have grown considerably at 5% over the past few years and this pattern is expected to continue.

The loan notes are redeemable in four (4) years' time at a premium of 12%.

At a recent meeting of the Board of Directors of Arura Plc, there was a proposal to revise the company's dividend policy provided the proposed policy would be welcomed by the shareholders and potential investors.

Assume you are the financial consultant for Arura Plc, and you have concerns about the uncertainty surrounding each year's forecast cash flows and the use of the WACC as the discount rate. You plan to hold consultative meetings with various stakeholders to discuss the same issue.

The company is looking at various financing options to finance this investment in new equipment.

Required:

(a) Estimate the company's current weighted average cost of capital (WACC). (11 marks)

(b) Evaluate the investment using the Net Present Value method and the company's current WACC as the discount rate. (15 marks)

(c) Discuss how the financial evaluation of the proposed investment might be refined or developed to overcome your concerns. (8 marks)

(c) Explain the factors that may influence the choice of finance for the new equipment.

(6 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt any THREE (3) questions.

QUESTION TWO

(a) Salima Gas Company is considering changing its inventory policy. The company is also considering implementing the Just in Time (JIT) working capital management technique. The company intends to use 1,400 kg of material per week and then re-ordering another 1,400kg. The cost of carrying the material in inventory is K40 and the fixed order cost is K800 per order. The company has targeted to increase the number of orders per annum from the current 30 orders per annum to 35 orders per annum under the proposed policy. Assume you were recently engaged as a financial consultant for Salima Gas Company. Your first assignment was to analyze the proposed inventory policy of Salima Gas Company and advise management on the proposed JIT technique.

Required:

(i) Calculate the total cost of the inventory policy and advise whether or not it is an optimal policy. (3 marks)

(ii) Calculate the economic order quantity. (2 marks)

(iii) Calculate the number of orders per annum and advise management whether they should proceed with the new policy. (2 marks)

(iv) Explain two (2) objectives of the JIT technique and how they may be achieved. (4 marks)

(b) Jerodin Limited is a Zambian company engaged in manufacturing. The company is considering acquiring machinery at a cost of K28 million. Manufacturing is expected to commence at the beginning of year two (2) after legal requirements with the Ministry of Trade and Manufacturing have been finalized.

This would result in K3 million per annum worth of additional accounting profits over the expected fourteen (14) year lifespan of the machinery beginning in year two (2). The machinery will be fully depreciated over the fourteen (14) years on a straight line basis. The company's apportioned overheads amounted to K1 million per annum. These expenses have been included in the computation of accounting profits. Jerodin's cost of capital is currently 8% per annum.

Required:

Advise Jerodin management whether they should proceed with the proposed acquisition of the new machinery. (9 marks)

[Total: 20 Marks]

QUESTION THREE

(a) A company, Nova Capital Bank Plc is considering acquiring a microfinance institution, MicroVest Plc, whose annual dividend is due for payment in a few days. Financial information for the two companies is as follows:

	Nova Capital Plc	MicroVest Plc
Number of ordinary shares	10 million	5 million
Ordinary share price (ex div basis)	K4.45	K3.30
Earnings per share	50 ngwee	40 ngwee
Proposed pay-out ratio		60%
Dividend per share a year ago	40 ngwee	23.3 ngwee
Dividend per share two years ago	30 ngwee	22 ngwee
Equity beta	1.3	1.4
Other relevant financial information		
Average sector price/earnings ratio	10	10
Risk-free rate of return	4.6%	4.6%
Return on the market	10.6%	10.6%

Required:

Determine the value of MicroVest Plc using the following methods:

(i) Dividend growth model; (6 marks)
(ii) Price/earnings ratio method; (2 marks)
(iii) Explain the significance to Nova Capital Plc, of the values you have calculated in comparison to the current market value of MicroVest Plc. (2 marks)

(b) Nova Capital Plc has in issue 9% bonds which are redeemable at their par value of K100 in five (5) years' time. Alternatively, each bond may be converted on that date into 20 ordinary shares of the company. The current ordinary share price of Nova Capital Plc is expected to grow at a rate of 6.5% per year for the foreseeable future. The bank has a cost of debt of 7% per year.

Required:

Calculate the following current values for each K100 convertible bond:

(i) Conversion value; (2 marks)
(ii) Market value; (3 marks)
(iii) Floor value; (1 mark)
(iv) Conversion premium and explain its significance. (4 marks)

[Total: 20 Marks]

QUESTION FOUR

The following financial information relates to Electrocom Zambia Ltd:

Income statement extract for the last year was as follows:

	K'000
Profit before interest and tax	12,000
Interest	(3000)
Profit before tax	9,000
Income tax expense	(3,000)
Profit for the period	6,000
Dividends	(2,000)
Retained profit for the period	4,000

Statement of financial position extract at the end of the last year:

	K'000	K'000
Ordinary shares, par value 50 ngwee	5,000	
Retained earnings	15,000	
Total equity		20,000
8% loan notes, redeemable in three years' time		30,000
Total equity and non-current liabilities		50,000

Average data on companies similar to Electrocom Zambia Ltd:

Interest coverage ratio	8 times
Long-term debt/equity (book value basis)	80%

The Board of Directors of the company is considering several proposals that have been made by its Chief Financial Officer. Each proposal is independent of any other proposal.

Proposal A: Dividend Increase

The current dividend per share should be increased by 20% in order to make the company more attractive to equity investors.

Proposal B: Bond Issue

A bond issue should be made in order to raise K15 million of new debt capital. Although there are no investment opportunities currently available, the cash raised would be invested on a short-term basis until a suitable investment opportunity arose. The loan notes would pay interest at a rate of 10% per year and be redeemable in eight (8) years' time at par.

Proposal C: Rights Issue

A 1 for 4 rights issue should be made at a 20% discount to the current share price of K2.30 per share in order to reduce gearing and the financial risk of the company.

Required:

(a) Analyse the effects of increasing the dividend by the company. (4 marks)
(b) Evaluate the effect of issuing the bond by the company. (7 marks)
(c) Calculate the theoretical ex rights price per share and the amount of finance that would be raised under Proposal C. (2 marks)
(d) Evaluate the proposal to use these funds to reduce gearing and financial risk. (7 marks)

[Total: 20 Marks]

QUESTION FIVE

The following projected information relates to the demand for a new proposed product for FIX Ltd:

Year	1	2	3	4	5
Demand (units' 000)	65	75	120	45	40

The new machine required to produce the new product costs K1 million and it has a life span of five (5) years. The disposal value of the machine is insignificant. Other information related to the proposed new investment is as follows:

Details	**Current price/Cost per unit**
Selling price	K10
Variable operating costs	K4
Over heads variable costs	K1

The projected inflation rate for selling price and variables costs is 5% and 6% respectively. The annual incremental fixed costs are K100, 000 after taking into account inflation rate of 3% per year. For investment appraisal purposes, FIX Ltd uses a nominal (money) discount rate of 10% per year and has a target return on capital employed of 30% per year. It also accepts projects were it recoups the initial investment within 2.5 years.

Ignore taxation.

Required:

(a) Calculate the following values for the investment proposal:

(i) Net Present Value; (5 marks)
(ii) Internal Rate of Return; (3 marks)

(iii) Return on Capital Employed (Accounting Rate of Return) based on average investment; and (6 marks)

(iv) Simple Payback Period. (2 marks)

(b) Comment on each results from (a) above. (4 marks)

[Total: 20 Marks]

END OF PAPER

Formulae

Modigliani and Miller Proposition 2 (with tax)

$$k_e = k_e^i + (1 - T)(k_e^i - k_d)\frac{V_d}{V_e}$$

Two asset portfolio

$$s_p = \sqrt{w_a^2 s_a^2 + w_b^2 s_b^2 + 2w_a w_b r_{ab} s_a s_b}$$

The Capital Asset Pricing Model

$$E(r_i) = R_f + \beta_i (E(r_m) - R_f)$$

The asset beta formula

$$\beta_a = \left[\frac{V_e}{(V_e + V_d(1 - T))}\beta_e\right] + \left[\frac{V_d(1 - T)}{(V_e + V_d(1 - T))}\beta_d\right]$$

The Growth Model

$$P_o = \frac{D_o(1 + g)}{(r_e - g)}$$

Gordon's growth approximation

$$g = br_e$$

The weighted average cost of capital

$$WACC = \left[\frac{V_e}{V_e + V_d}\right]k_e + \left[\frac{V_d}{V_e + V_d}\right]k_d(1 - T)$$

The Fisher formula

$$(1 + i) = (1 + r)(1 + h)$$

Purchasing power parity and interest rate parity

$$S_1 = S_0 x \frac{(1 + h_c)}{(1 + h_b)} \qquad F_0 = S_0 x \frac{(1 + i_c)}{(1 + i_b)}$$

Modified Internal Rate of Return

$$MIRR = \left[\frac{PV_R}{PV_I}\right]^{\frac{1}{n}}\left(1 + r_e\right) - 1$$

The Black-Scholes option pricing model

$$c = P_a N(d_1) - P_e N(d_2)e^{-rt}$$

Where:

$$d_1 = \frac{\ln(P_a / P_e) + (r + 0.5s^2)t}{s\sqrt{t}}$$

$$d_2 = d_1 - s\sqrt{t}$$

The Put Call Parity relationship

$$p = c - P_a + P_e e^{-rt}$$

Present Value Table

Present value of 1 i.e. $(1 + r)^{-n}$

Where r = discount rate
n = number of periods until payment

Discount rate (r)

Periods (n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0·990	0·980	0·971	0·962	0·952	0·943	0·935	0·926	0·917	0·909	1
2	0·980	0·961	0·943	0·925	0·907	0·890	0·873	0·857	0·842	0·826	2
3	0·971	0·942	0·915	0·889	0·864	0·840	0·816	0·794	0·772	0·751	3
4	0·961	0·924	0·888	0·855	0·823	0·792	0·763	0·735	0·708	0·683	4
5	0·951	0·906	0·863	0·822	0·784	0·747	0·713	0·681	0·650	0·621	5
6	0·942	0·888	0·837	0·790	0·746	0·705	0·666	0·630	0·596	0·564	6
7	0·933	0·871	0·813	0·760	0·711	0·665	0·623	0·583	0·547	0·513	7
8	0·923	0·853	0·789	0·731	0·677	0·627	0·582	0·540	0·502	0·467	8
9	0·941	0·837	0·766	0·703	0·645	0·592	0·544	0·500	0·460	0·424	9
10	0·905	0·820	0·744	0·676	0·614	0·558	0·508	0·463	0·422	0·386	10
11	0·896	0·804	0·722	0·650	0·585	0·527	0·475	0·429	0·388	0·305	11
12	0·887	0·788	0·701	0·625	0·557	0·497	0·444	0·397	0·356	0·319	12
13	0·879	0·773	0·681	0·601	0·530	0·469	0·415	0·368	0·326	0·290	13
14	0·870	0·758	0·661	0·577	0·505	0·442	0·388	0·340	0·299	0·263	14
15	0·861	0·743	0·642	0·555	0·481	0·417	0·362	0·315	0·275	0·239	15

(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0·901	0·893	0·885	0·877	0·870	0·862	0·855	0·847	0·840	0·833	1
2	0·812	0·797	0·783	0·769	0·756	0·743	0·731	0·718	0·706	0·694	2
3	0·731	0·712	0·693	0·675	0·658	0·641	0·624	0·609	0·593	0·579	3
4	0·659	0·636	0·613	0·592	0·572	0·552	0·534	0·516	0·499	0·482	4
5	0·593	0·567	0·543	0·519	0·497	0·476	0·456	0·437	0·419	0·402	5
6	0·535	0·507	0·480	0·456	0·432	0·410	0·390	0·370	0·352	0·335	6
7	0·482	0·452	0·425	0·400	0·376	0·354	0·333	0·314	0·296	0·279	7
8	0·434	0·404	0·376	0·351	0·327	0·305	0·285	0·266	0·249	0·233	8
9	0·391	0·361	0·333	0·308	0·284	0·263	0·243	0·225	0·209	0·194	9
10	0·352	0·322	0·295	0·270	0·247	0·227	0·208	0·191	0·176	0·162	10
11	0·317	0·287	0·261	0·237	0·215	0·195	0·178	0·162	0·148	0·135	11
12	0·286	0·257	0·231	0·208	0·187	0·168	0·152	0·137	0·124	0·112	12
13	0·258	0·229	0·204	0·182	0·163	0·145	0·130	0·116	0·104	0·093	13
14	0·232	0·205	0·181	0·160	0·141	0·125	0·111	0·099	0·088	0·078	14
15	0·209	0·183	0·160	0·140	0·123	0·108	0·095	0·084	0·074	0·065	15

Annuity Table

Present value of an annuity of 1 i.e. $\frac{1 - (1 + r)^{-n}}{r}$

Where r = discount rate
n = number of periods

Discount rate (r)

Periods (n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0·990	0·980	0·971	0·962	0·952	0·943	0·935	0·926	0·917	0·909	1
2	1·970	1·942	1·913	1·886	1·859	1·833	1·808	1·783	1·759	1·736	2
3	2·941	2·884	2·829	2·775	2·723	2·673	2·624	2·577	2·531	2·487	3
4	3·902	3·808	3·717	3·630	3·546	3·465	3·387	3·312	3·240	3·170	4
5	4·853	4·713	4·580	4·452	4·329	4·212	4·100	3·993	3·890	3·791	5
6	5·795	5·601	5·417	5·242	5·076	4·917	4·767	4·623	4·486	4·355	6
7	6·728	6·472	6·230	6·002	5·786	5·582	5·389	5·206	5·033	4·868	7
8	7·652	7·325	7·020	6·733	6·463	6·210	5·971	5·747	5·535	5·335	8
9	8·566	8·162	7·786	7·435	7·108	6·802	6·515	6·247	5·995	5·759	9
10	9·471	8·983	8·530	8·111	7·722	7·360	7·024	6·710	6·418	6·145	10
11	10·37	9·787	9·253	8·760	8·306	7·887	7·499	7·139	6·805	6·495	11
12	11·26	10·58	9·954	9·385	8·863	8·384	7·943	7·536	7·161	6·814	12
13	12·13	11·35	10·63	9·986	9·394	8·853	8·358	7·904	7·487	7·103	13
14	13·00	12·11	11·30	10·56	9·899	9·295	8·745	8·244	7·786	7·367	14
15	13·87	12·85	11·94	11·12	10·38	9·712	9·108	8·559	8·061	7·606	15

(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0·901	0·893	0·885	0·877	0·870	0·862	0·855	0·847	0·840	0·833	1
2	1·713	1·690	1·668	1·647	1·626	1·605	1·585	1·566	1·547	1·528	2
3	2·444	2·402	2·361	2·322	2·283	2·246	2·210	2·174	2·140	2·106	3
4	3·102	3·037	2·974	2·914	2·855	2·798	2·743	2·690	2·639	2·589	4
5	3·696	3·605	3·517	3·433	3·352	3·274	3·199	3·127	3·058	2·991	5
6	4·231	4·111	3·998	3·889	3·784	3·685	3·589	3·498	3·410	3·326	6
7	4·712	4·564	4·423	4·288	4·160	4·039	3·922	3·812	3·706	3·605	7
8	5·146	4·968	4·799	4·639	4·487	4·344	4·207	4·078	3·954	3·837	8
9	5·537	5·328	5·132	4·946	4·772	4·607	4·451	4·303	4·163	4·031	9
10	5·889	5·650	5·426	5·216	5·019	4·833	4·659	4·494	4·339	4·192	10
11	6·207	5·938	5·687	5·453	5·234	5·029	4·836	4·656	4·486	4·327	11
12	6·492	6·194	5·918	5·660	5·421	5·197	4·988	4·793	4·611	4·439	12
13	6·750	6·424	6·122	5·842	5·583	5·342	5·118	4·910	4·715	4·533	13
14	6·982	6·628	6·302	6·002	5·724	5·468	5·229	5·008	4·802	4·611	14
15	7·191	6·811	6·462	6·142	5·847	5·575	5·324	5·092	4·876	4·675	15

Standard normal distribution table

	0·00	0·01	0·02	0·03	0·04	0·05	0·06	0·07	0·08	0·09
0·0	0·0000	0·0040	0·0080	0·0120	0·0160	0·0199	0·0239	0·0279	0·0319	0·0359
0·1	0·0398	0·0438	0·0478	0·0517	0·0557	0·0596	0·0636	0·0675	0·0714	0·0753
0·2	0·0793	0·0832	0·0871	0·0910	0·0948	0·0987	0·1026	0·1064	0·1103	0·1141
0·3	0·1179	0·1217	0·1255	0·1293	0·1331	0·1368	0·1406	0·1443	0·1480	0·1517
0·4	0·1554	0·1591	0·1628	0·1664	0·1700	0·1736	0·1772	0·1808	0·1844	0·1879
0·5	0·1915	0·1950	0·1985	0·2019	0·2054	0·2088	0·2123	0·2157	0·2190	0·2224
0·6	0·2257	0·2291	0·2324	0·2357	0·2389	0·2422	0·2454	0·2486	0·2517	0·2549
0·7	0·2580	0·2611	0·2642	0·2673	0·2704	0·2734	0·2764	0·2794	0·2823	0·2852
0·8	0·2881	0·2910	0·2939	0·2967	0·2995	0·3023	0·3051	0·3078	0·3106	0·3133
0·9	0·3159	0·3186	0·3212	0·3238	0·3264	0·3289	0·3315	0·3340	0·3365	0·3389
1·0	0·3413	0·3438	0·3461	0·3485	0·3508	0·3531	0·3554	0·3577	0·3599	0·3621
1·1	0·3643	0·3665	0·3686	0·3708	0·3729	0·3749	0·3770	0·3790	0·3810	0·3830
1·2	0·3849	0·3869	0·3888	0·3907	0·3925	0·3944	0·3962	0·3980	0·3997	0·4015
1·3	0·4032	0·4049	0·4066	0·4082	0·4099	0·4115	0·4131	0·4147	0·4162	0·4177
1·4	0·4192	0·4207	0·4222	0·4236	0·4251	0·4265	0·4279	0·4292	0·4306	0·4319
1·5	0·4332	0·4345	0·4357	0·4370	0·4382	0·4394	0·4406	0·4418	0·4429	0·4441
1·6	0·4452	0·4463	0·4474	0·4484	0·4495	0·4505	0·4515	0·4525	0·4535	0·4545
1·7	0·4554	0·4564	0·4573	0·4582	0·4591	0·4599	0·4608	0·4616	0·4625	0·4633
1·8	0·4641	0·4649	0·4656	0·4664	0·4671	0·4678	0·4686	0·4693	0·4699	0·4706
1·9	0·4713	0·4719	0·4726	0·4732	0·4738	0·4744	0·4750	0·4756	0·4761	0·4767
2·0	0·4772	0·4778	0·4783	0·4788	0·4793	0·4798	0·4803	0·4808	0·4812	0·4817
2·1	0·4821	0·4826	0·4830	0·4834	0·4838	0·4842	0·4846	0·4850	0·4854	0·4857
2·2	0·4861	0·4864	0·4868	0·4871	0·4875	0·4878	0·4881	0·4884	0·4887	0·4890
2·3	0·4893	0·4896	0·4898	0·4901	0·4904	0·4906	0·4909	0·4911	0·4913	0·4916
2·4	0·4918	0·4920	0·4922	0·4925	0·4927	0·4929	0·4931	0·4932	0·4934	0·4936
2·5	0·4938	0·4940	0·4941	0·4943	0·4945	0·4946	0·4948	0·4949	0·4951	0·4952
2·6	0·4953	0·4955	0·4956	0·4957	0·4959	0·4960	0·4961	0·4962	0·4963	0·4964
2·7	0·4965	0·4966	0·4967	0·4968	0·4969	0·4970	0·4971	0·4972	0·4973	0·4974
2·8	0·4974	0·4975	0·4976	0·4977	0·4977	0·4978	0·4979	0·4979	0·4980	0·4981
2·9	0·4981	0·4982	0·4982	0·4983	0·4984	0·4984	0·4985	0·4985	0·4986	0·4986
3·0	0·4987	0·4987	0·4987	0·4988	0·4988	0·4989	0·4989	0·4989	0·4990	0·4990

This table can be used to calculate $N(d)$, the cumulative normal distribution functions needed for the Black-Scholes model of option pricing. If $d_i > 0$, add 0·5 to the relevant number above. If $d_i < 0$, subtract the relevant number above from 0·5.

CA2.5 FINANCIAL MANAGEMENT SUGGESTED SOLUTIONS

SOLUTION ONE

(a) **Workings**

Ex-interest market values

Shares:

K55- K8 = K47

Loan notes:

K80 – (5%*K100) = K75

Cost of Equity:

Ke= [do(1+g)/Po] +g

Ke = [K8 (1 + 0.05)/K47] + 0.05

Ke = 22.87%

Cost of Debt

YEAR	CASH FLOW	5% discount factor	PV	20% Discount factor	PV
0	(K75)	1	(K75)	1	(K75)
1-4	5% X100 =K5	3.546	17.73	2.589	12.9
4	100*1.12=112	0.823	92.18	0.482	53.9
			34.91		(8.2)
TOTAL					

IRR = 5% + [34.91 / (34.91+ 8.2)] X (20-5) %

IRR = 17.91%

WACC

Market Values:		%
Equity = (800,000/5) x 47 =	K7, 520,000	50.1
Debt = 75/100 x K10, 000,000=	K7,500,000	49.9
Total	K15,520,000	100

(22.87% * 0.501) + (17.91% * 0.499)

= 20.4% or 20%

(b) **NPV Computation**

YEAR	0	1	2	3	4	5
	K'000	K'000	K'000	K'000	K'000	K'000
Profit (work 1)		500	554	615	683	758
Tax @ 30%		150	166	185	205	227
Initial investment	-2,500					
Sale of machinery (WK 2)						819.2
Capital allowances (wk 2)		150	120	96	77	61
Working capital	-150	-16.5	-18.3	-20.3	-22.6	227.7
Net Cash flow	-2,650	483.5	489.7	505.7	532.4	1,638.9
DF @ 20%	1	0.833	0.694	0.579	0.482	0.402
PV	-2,650	402.76	339.85	292.8	256.62	658.84
NPV	(K699.13)					

The investment is not worthwhile because it provides a negative NPV of K699,130. This implies that the wealth of shareholders would decrease if the investment is undertaken.

Workings 1

Profits	1	2	3	4	5
	450,000	450,000	450,000	450,000	450,000
nominal value x1.11 x 450,000	499,500	554,445	615,434	683,132	758,276

Workings 2

Capital allowances and resale value

		K'000
1st Allowance	2500 x20%x30%	150
2nd Allowance	80% of previous	120
3rd Allowance	80% of previous	96
4th Allowance	80% of previous	77
5th Allowance	80% of previous	61
TOTAL		

There is no balancing allowance since the equipment is sold at its WDV

written down value = K2,500,000 X 0.8^5 =K 819,200

Working 3

Working capital

Year	0	1	2	3	4	5
Amounts	150,000	150,000	150,000	150,000	150,000	
150000*1.11	150,000	166,500	184,815	205,145	227,711	

Incremental TOTAL	16,500	18,315	20,330	22,566	-227,711

Based on the positive NPV obtained, the project is viable and therefore should be undertaken.

(c) **How the financial evaluation of the proposed investment might be refined or developed to overcome your concerns**

1. **Use of WACC as discount rate**

The WACC approximates to the overall cost of capital to the business. However this investment amounts to K2,650,000 (including working capital) and is therefore a relatively large investment. We should therefore consider whether undertaking the project would in itself affect the cost of capital to the business. If it does, then the WACC should be adjusted to take account of this. Further it is assumed that the project carries the same level of risk as the existing operations. If the risk profile is different, then the cost of capital should be adjusted to reflect this.

2. **The timescale of the project**

The project is evaluated over a five year time frame, taking into account the tax effects, which is a long time in forecasting terms. In practice, it is unlikely that the same discount rate will be appropriate to the whole of this period and it would be helpful to adjust the current WACC for the expected movements in the general economic situation, and in particular the level of interest rates during that period.

3. **The nature of the cash flows**

Single values have been used for each element of the cashflow projections. In practice, each of the different elements is likely to be subject to different levels of risk. For example the projected level of sales could be affected by the speed of technological change within the industry as well as by more general economic influences. We should therefore attempt to estimate the levels of uncertainty in the forecast cashflows. The most llikely cashflows can then be reduced in line with our perceived risk aversion before being discounted at a rate appropriate to each year.

4. **The sensitivities inherent in the project**

It is likely that certain elements within the cash flow projections are more important than others in determining the eventual outcome of the project. It would therefore be more useful to undertake some form of sensitivity analysis to identify both the key variables and the likely impact of their deviating from forecasts on the financial outcome of the project.

(d) **Factors affecting the choice of finance**

1. **The Cost of Finance**

   The cost of finance required should be affordable and within the budget set by the company. If the cost is too high the company may not afford. The benefits of investing should surpass the cost of obtaining the finance. The interest rate is included in the cost of capital and therefore if the NPV is positive, it means the returns from the investment will be higher than the cost of finance required for the investment.

2. **The duration of finance**
   The company may require a long term or medium or short term loan. The choice of finance will depend on the requirements of the company. Normally the duration of the project should match the duration of the finance. Long-term projects should be financed by longterm finances and vice versa.

3. **Conditions attached to the finance**
   The collateral required if any. Any covenants which may be attached to the loan.

SOLUTION TWO

(a)
(i) Carrying cost = Average inventory x carrying cost per annum.
1400/2 x K40 = K28000

Ordering cost = No. of orders per annum x Fixed order cost.

52 x K800 = K41,600

The inventory policy is not optimal, as the above costs are not equal. Order costs are higher than carrying costs.

(ii) Economic order quantity

[2(52) (1400) (800) / 40]^1/2 = 1706 kgs.

(iii) No of orders per annum

(1400 x 52) / 1706
=42.6 times
Management should proceed with the new policy as it is higher than the target 35 orders per annum.

(iv) Objectives of JIT

1) Reduced manufacturing lead times
2) Reduced scrap/rework/ warranty costs
3) Flexible production process responsive to the customers' requirements.
4) Reduction in capital tied up in inventory.
5) Improved labour productivity

MEASURES TO ACHIEVE JIT

1) Elimination of non-value adding activities.
2) Reducing batch sizes
3) Delivering materials to point of use.
4) Emphasis on total quality.
5) Long term supplier relationships that depend on quality and reliability.
6) Making goods to order to reduce inventory of finished goods.

(b)

	Yr 2 - 15	Yr 0
	K'M	K'M
Cost of machinery		(28.0)
Accounting profits	3	

Add back: depreciation	2	
Existing overheads	1	
Net cash flow	6	(28.0)
Annuity factor Year 2 – 15 @ 8%	7.633	1
Present Value	45.8	(28)
Net Present Value(NPV)		**17.8**
Total		

Management should proceed with the proceed with the proposed investment as the NPV is positive.

SOLUTION THREE

(a)

(i) **Dividend growth model**

Earnings per share of MicroVest = 40n
Proposed payout ratio = 60%
Proposed dividend of MicroVest is therefore = 40 x 0.6 = 24n per share

If the future dividend growth rate is expected to continue the historical trend in dividends per share, the historic dividend growth rate can be used as a substitute for the expected future dividend growth rate in the dividend growth model.

Average geometric dividend growth rate over the last two years = $(24/22)^{1/2}$ = <u>1.045 or 4.5%.</u>
(Alternatively, dividend growth rates over the last two years were 3% (24/23.3) and 6% (23.3/22), with an arithmetic average of (6 + 3)/2 = 4.5%)
<u>Cost of equity</u> of MicroVest using the capital asset pricing model (CAPM)
= 4.6 + 1.4 x (10.6 – 4.6) = 4.6 + (1.4 x 6) = <u>13%</u>

Value of ordinary share from dividend growth model
$=P_0 = D_0 (1+g)/(r_e - g)$=(24 x 1.045)/(0.13 – 0.045)= <u>K2.95</u>.
Value of MicroFin = 2.95 x 5m = <u>K14.75 million</u>

(ii) **Price/earnings ratio method valuation**

Earnings per share of MicroVest = 40n
Average sector price/earnings ratio = 10
Implied value of ordinary share of MicroVest = 40 x 10 = K4.00
Number of ordinary shares = 5 million
Value of MicroVest = 4.00 x 5m = **<u>K20 million</u>**

(iii) **Significance of calculated values in comparison to current market values**

The current market capitalization of MicroVest is K16.5m (K3.30 x 5m).The price/earnings ratio value of the company is higher than this at K20m = (0.4 X 10)5m, using the sector average price/earnings ratio. MicroVest's own price/earnings ratio is 8.25 (3.30/0.4). The difference between the two price/earnings ratios may indicate scope for improving the financial performance of MicroVest following its acquisition. If Nova Capital has the managerial skills to effect this improvement, the company and its shareholders may be able to benefit as a result of the acquisition.

The dividend growth model value is lower than the current market capitalization at K14.75m. This represents a minimum value that MicroVest shareholders will accept if Nova Capital makes an offer to buy their shares. In reality they would want more than this as an inducement to sell. The current market capitalization of MicroVest of K16m may reflect the belief of the stock market that a takeover bid for the company is imminent and, depending on its efficiency, may indicate a fair price for MicroVest's shares, at least on a marginal trading basis.

Alternatively, either the cost of equity or the expected dividend growth rate used in the dividend growth model calculation could be inaccurate, or the difference between the two values may be due to a degree of inefficiency in the stock market.

(b)
(i) Conversion value of each convertible bond:

Expected share price in five years' time = 4.45 x $(1.0655)^5$ = K6.10
<u>Conversion value</u> = 6.10 x 20 = **<u>K122</u>**

Compared with redemption at par value of K100, conversion will be preferred. The current market value will be the present value of future interest payments, plus the present value of the conversion value, discounted at the cost of debt of 7% per year.

(ii) Market value of each convertible bond

Year	Cash flow (K)	DF	PV(K)
1-5	9	4.100	36.90
5	122	0.713	86.99
			123.89

Calculation of floor value of each convertible bond - The current floor value will be the present value of future interest payments, plus the present value of the redemption value, discounted at the cost of debt of 7% per year.

(iii) Floor value of each convertible bond = (9 x 4.100) + (100 x 0.713) = <u>K108.20</u>

(iv) Calculation of conversion premium of each convertible bond:

Current Conversion value = 4.45 x 20 = <u>K89.00</u>

Conversion premium = current market value – current conversion value
= K123.89 – 89.00 = **<u>K34.89</u>**

This is often expressed on a per share basis, i.e. 34.89/20 = K1.75 per share. The premium accepted by investors in the convertible bond will depend on Nova Capital's growth potential and prospects for an increase in its share price. The conversion premium has the effect on conversion of bonds of reducing the number of new ordinary shares issued.

SOLUTION FOUR

(a) Electrocom Zambia Ltd paid a total dividend of K2 million or 20 ngwee per share according to the income statement information. An increase of 20% would make this K2.4 million or 24 ngwee per share and would reduce dividend cover from 3 times to 2.5 times. It is debatable whether this increase in the current dividend would make the company more attractive to equity investors, who use a variety of factors to inform their investment decisions, not expected dividends alone. For example, they will consider the business and financial risk associated with a company when deciding on their required rate of return.

It is also unclear what objective the CFO had in mind when suggesting a dividend increase. The primary financial management objective is the maximization of shareholder wealth and if the company is following this objective, the dividend will already be set at an optimal level. From this perspective, a dividend increase should arise from increased maintainable profitability, not from a desire to 'make the company more attractive'. Increasing the dividend will not generate any additional capital for the company, since existing shares are traded on the secondary market.

Miller and Modigliani have shown that, in a perfect capital market, share prices are independent of the level of dividend paid. The value of the company depends upon its income from operations and not on the amount of this income which is paid out as dividends. Increasing the dividend would not necessarily make the company more attractive to equity investors, but would attract equity investors who desired the new level of dividend being offered. Current shareholders who were satisfied by the current dividend policy could transfer their investment to a different company if their utility had been decreased.

The proposal to increase the dividend should therefore be rejected, perhaps in favor of a dividend increase in line with current dividend policy.

(b) The proposal to raise K15 million of additional debt finance does not appear to be a sensible one, given the current financial position of Electrocom Zambia Ltd. The company is very highly geared if financial gearing measured on a book value basis is considered. The debt/equity ratio of 150% is almost twice the average of similar companies. This negative view of the financial risk of the company is reinforced by the interest coverage ratio, which at only four times is half that of similar companies.

Raising additional debt would only worsen these indicators of financial risk. The debt/equity ratio would rise to 225% on a book value basis and the interest coverage ratio would fall to 2.7 times, suggesting that the company would experience difficulty in making interest payments.

The proposed use to which the newly-raised funds would be put merits further investigation. Additional finance should be raised when it is needed, rather than being held for speculative purposes. Until a suitable investment opportunity comes along, the company will be paying an opportunity cost on the new finance equal to the difference between the interest rate on the new debt (10%) and the interest paid on short-term investments. This opportunity cost would decrease shareholder wealth. Even if an investment opportunity arises, it is very unlikely that the funds needed would be exactly equal to K15m.

The interest charge in the income statement information is K3m while the interest payable on the 8% loan notes is K2.4m (30 x 0.08). It is reasonable to assume that K0.6m of interest is due to an overdraft. Assuming a short-term interest rate lower than the 8% loan note rate – say 6% – implies an overdraft of approximately K10m (0.6/0.06), which is one-third of the amount of the long-term debt. The debt/equity ratio calculated did not include this significant amount of short-term debt and therefore underestimates the financial risk of Electrocom Zambia Plc.

The bond issue would be repayable in eight years' time, which is five years after the redemption date of the current loan note issue. The need to redeem the current K30m loan note issue cannot be ignored in the financial planning of the company. The proposal to raise K15m of long-term debt finance should arise from a strategic review of the long-term and short-term financing needs of the company, which must also consider redemption or refinancing of the current loan note issue and, perhaps, reduction of the sizeable overdraft, which may be close to, or in excess of, its agreed limit.

Given the above concerns and considerations discussed, the proposal to raise additional debt finance is not recommended.

Analysis
Current gearing (debt/equity ratio using book values) = 30/20 = 150% Revised gearing (debt/equity ratio using book values) = (30 + 15)/20 = 225%
Current interest coverage ratio = 12/3 = 4 times
Additional interest following debt issue = 15m x 0.1 = K1.5m Revised interest coverage ratio = 12/(3 + 1.5) = 2.7 times

(c) **Analysis**

Rights issue price = 2.30 x 0.8 = K1.84
Theoretical ex- rights price = 1/5 (4 x K2.3) + K1.84) = K2.2
Number of new shares issued = (5/0.5)/4 = 2.5 million
Cash raised = 1.84 x 2.5m = K4.6 million
Number of shares in issue after rights issue = 10 + 2.5 = 12.5 million

(d)
Current gearing (debt/equity ratio using book values) = 30/20 = 150%
Revised gearing (debt/equity ratio using book values) = 30/24.6 = 122%
Current interest coverage ratio = 12/3 = 4 times Current return on equity (ROE) = 6/20 = 30%
In the absence of any indication as to the return expected on the new funds, we can assume the rate of return will be the same as on existing equity, an assumption consistent with the calculated theoretical ex- rights price.
After-tax return on the new funds = 4.6m x 0.3 = K1.38 million
Before-tax return on new funds = 1.38m x (9/6) = K2.07 million
Revised interest coverage ratio = (12 + 0.07)/3 = 4.7 times

The current debt/equity and interest coverage ratios suggest that there is a need to reduce the financial risk of Electrocom Zambia Plc. A rights issue would reduce the debt/equity ratio of the company from 150% to 122% on a book value basis, which is 47% higher than the average debt/equity ratio of similar companies. After the rights issue, financial gearing is still therefore high enough to be a cause for concern.

The interest coverage ratio would increase from 4 times to 4.7 times, again assuming that the new funds will earn the same return as existing equity funds. This is still much lower than the average interest coverage ratio of similar companies, which is 8 times. While 4.7 times is a safer level of interest coverage, it is still somewhat on the low side.

No explanation has been offered for the amount to be raised by the rights issue. Why has the CFO proposed that K4.6m be raised? If the proposal is to reduce financial risk, what level of financial gearing and interest coverage would be seen as safe by shareholders and other stakeholders? What use would be made of the funds raised? If they are used to redeem debt they will not have a great impact on the financial position of the company, in fact it appears likely that that the overdraft is twice as big as the amount proposed to be raised by the rights issue. The refinancing need therefore appears to be much greater than K4.6m. If the funds are to be used for investment purposes, further details of the investment project, its expected return and its level of risk should be considered.

There seems to be no convincing reason for the proposed rights issue and it cannot therefore be recommended, at least on financial grounds.

SOLUTION FIVE

(a) (i) NPV						
Details	Yr0	Yr1	Yr2	Yr3	Yr4	Yr5
Selling price by 5%	-	10.50	11.03	11.58	12.16	12.76
Variable costs by 6%	-	4.24	4.49	4.76	5.05	5.35
Overhead V/costs by 6%	-	1.06	1.12	1.19	1.26	1.34
Contribution per unit	**-**	**5.20**	**5.41**	**5.62**	**5.84**	**6.07**
Units Demanded'000	-	65.00	75.00	120.00	45.00	40.00
Contribution (K'000)	**-**	**338.00**	**405.53**	**674.54**	**262.92**	**242.87**
Fixed Costs	-	100.00	100.00	100.00	100.00	100.00
Initial Cost	- 1,000.00	-	-	-	-	-
Net Cash Flows	**- 1,000.00**	**238.00**	**305.53**	**574.54**	**162.92**	**142.87**
Discount@10%	1.000	0.909	0.826	0.751	0.683	0.621
Present Values	**- 1,000.00**	**216.34**	**252.36**	**431.48**	**111.27**	**88.72**
NPV	**100.18**					
Comment: Accept the project because the NPV is positive which means the investment would increase the wealth shareholders.						
(a) (ii) IRR						
Net Cash Flows	- 1,000.00	238.00	305.53	574.54	162.92	142.87
Discount@15%	1	0.87	0.756	0.658	0.572	0.497
Present Value	**- 1,000.00**	**207.06**	**230.98**	**378.05**	**93.19**	**71.01**
NPV	**- 19.72**					
IRR= 10% + 100.18/100.18+19.72 (15%-10%)						
IRR= 14.18%						
Comment: Accept the project because it given the IRR of 14.18% which is above the minimum expected return of 10%.						
(a) (iIi) ROCE or ARR						
Net Cash Flows	238.00	305.53	574.54	162.92	142.87	
Add: Depreciation (1000/5)	200	200	200	200	200	

Profits	38.00	105.53	374.54	-37.08	-57.13	
Total Profits	423.85					
Average Profits	84.77					
Average investment (1000/2)	500					
ARR	**17%**					
Comment: Reject the proposed investment because it given an ARR of 17% which below the company target rate of 25%.						
(a) (iv) Pay back period						
Year	Cash flows	Balance				
0	-1000	-1000				
1	238.00	-762.00				
2	305.53	-456.48				
3	574.54	118.07				
4	162.92					
5	142.87					
Payback period = 3.79 years						
(b)						
Comment: Reject the project because it given a payback period of 3.79 years which is higher than the company accepted period of 2.5 years.						

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ZAMBIA APPLICATION ADVANCED DIPLOMA IN IN ACCOUNTANCY

CA 2.6 STRATEGIC BUSINESS ANALYSIS

FRIDAY 16 JUNE 2023

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

INSTRUCTIONS TO CANDIDATES

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

2. This paper is divided into TWO sections:

   Section A: One (1) compulsory scenario question.

   Section B: Four (4) Optional scenario Questions. Attempt any three (3) questions.

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

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

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

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

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

8. Present legible and tidy work.

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

DO NOT OPEN THIS QUESTION PAPER UNTIL YOU ARE INSTRUCTED BY

THE INVIGILATOR.

SECTION A

This question is compulsory and must be attempted.

<u>QUESTION ONE</u> – (COMPULSORY)

Trade Kings (Z) Limited

Trade Kings Group with its world class manufacturing facilities in Zambia and Zimbabwe is one of the largest privately owned manufacturers in Southern Africa. Trade Kings has proudly been manufacturing and exporting the highest quality Zambian made products to Southern Africa and beyond in addition to selling locally.
Since 1995, Trade Kings is now celebrating twenty-eight (28) years of high quality, trusted and affordable products, our portfolio has grown dramatically and the group has diversified extensively. Today, Trade Kings is a globally competitive group of businesses driven by global standards, manufacturing practices and an aggressive research and development agenda which has led to the high levels of innovation, constant improvement and a host of highly specialized, technically advanced products in recent years.

The scope of Trade Kings Group today includes four distinct clusters namely:

- **Food:** Confectionery, biscuits, baking powder, custard powder, castor sugar, soya fillets, spice mixes, breakfast cereals, infant cereals, potato crisps and maize snacks.
- **Beverage:** Maheu, Chibwantu, milkshakes, instant coffee and tea beverages, carbonated soft drinks, energy drinks, juices, milk and dairy juice blends.
- **Laundry, Home and Personal Care Products:** Detergent (powder and paste), bleaches, floor cleaners, toilet cleaners, dishwashing liquids, all-purpose creams, scouring powders, window and glass cleaners, bath soaps, hygiene soaps, beauty soaps, hair soaps, glycerine, hand sanitisers, liquid handwashing soaps, antiseptic liquids and fabric conditioners.
- **Steel:** Steel re-bar, angles and channels.

The drive for diversification and a belief in the establishment of specialised businesses, to ensure focus and innovation within each category, has led to the Trade Kings Group we know today. Trade Kings Group is comprised of Trade Kings, Big Tree Beverages, Big Tree Brands (featuring several specialist sub businesses focusing independently on infant nutrition, cereals and baking products and spices), Dairy Gold, Swiss Bake, Yoyo Foods and Universal Mining and Chemicals Limited (UMCIL).

Since its first product, Blue Boom Detergent Paste and the establishment of the now iconic BOOM brand, Trade Kings has developed a portfolio of many of the foremost brands in the Zambian and Southern African markets across the categories and sectors in which it operates.

Thanks to the support of the Zambian people and those in all ten (10) of the Southern African countries in which it operate, Trade Kings and its brands have become household names and are synonymous with quality, reliability and value for money across the portfolio and the group of companies.

At Trade Kings, it is aimed to create a connection between our products and their impact on people's lives. From the promotion of affordable hygiene with Yebo Carbolic soaps, the health benefits of Mediherb ayurvedic herbal soaps and the antibacterial family protection of Hygienix hygiene soap, to the livelihoods that selling our confectionary lines like Amazon and Milkit creates. Its role in the lives of others is never taken for granted and inspires our business approach, culture and way of thinking.

Trade Kings purpose is "Improving Lives", whether through its emphasis on providing branded products of superior quality and value, value addition and shared value projects with local suppliers, growers or producers, our corporate social responsibility initiatives and public private partnerships through the Trade Kings Foundation or its focus on women's and youth empowerment initiatives. All its efforts are aligned to deliver this single minded promise. Both evident in its history and the actions of its founders that aim to improve the lives of its consumers nationally, regionally and internationally both now and for future generations through carefully selected strategic projects.
Source: https://www.tradekings.co.zm/home-blocks/about-tradekings-group

Required:

(a) Discuss the Ansoff Matrix (Product-Market) Strategy applying it to the case of above of Trade Kings (Z) Limited. (20 marks)

(b) According to Johnson et al (2005), explain three (3) advantages of diversification.

(9 marks)

(c) With examples distinguish between Vertical and horizontal integration. (8 marks)

(d) If approached as a business consultant, what would you advise Trade Kings to do to keep ahead of their game? (3 marks)

[Total: 40 Marks]

SECTION B

There are four (4) questions in this Section.

Attempt any three (3) questions.

<u>QUESTION TWO</u>

John Chibuye has just been appointed as Managing Director (MD) of Copperbelt Bottling Company. This followed the termination of contract of the previous MD on account of a poor marketing strategy that has led to a subpar performance of the company. MD Chibuye is working on a new strategy to improve business performance.

Required:

(a) Define the concept of strategy. (2 marks)

(b) Describe any five (5) important Characteristics of strategic decisions. (10 marks)

(c) MD Chibuye will need to define the mission of the company first, indicate the four (4) elements that are in an expanded definition of mission. (8 marks)

[Total: 20 Marks]

<u>QUESTION THREE</u>

You have been invited to attend your organization's retreat to develop a new strategic plan. Your superior has asked you to make a brief presentation.

Required:

(a) Explain the three (3) levels of strategy any typical business organization can pursue.

(9 marks)

(b) Identify the three (3) elements of strategic management. (6 marks)

(c) Give five (5) characteristics of long term decisions (5 marks)

[Total: 20 Marks]

QUESTION FOUR

(a) NAPSA is about to complete the construction of its ultra-modern four (4) star Mosi-o-tunya Resort in Livingstone. This project is costing one hundred million ($100m) U.S dollars.

Required:

(i) Give three (3) disadvantages of institutional investment. (6 marks)

(ii) Describe three (3) situations institutional investors may intervene in the running of a business and even call for a meeting to attempt to unseat the Board. (6 marks)

(b) Describe three (3) financial risks with respect to a firm of your choice. (6 marks)

(c) How are hazards different from Risks? (2 marks)

[Total: 20 Marks]

QUESTION FIVE

The value of information systems is best proved with the implementation of an executive information system (EIS). An EIS brings strategic information on activities of various operating units into a single, easy-to-use system for the executive. A properly functioning EIS will enhance the activities being monitored and the data generated by those activities.

Required:

(a) With the aid of a diagram, draw a model of a typical EIS and outline some of its features. (10 marks)

(b) By using Porters five (5) forces clearly show how information system can be used by the company to create a competitive advantage (10 marks)

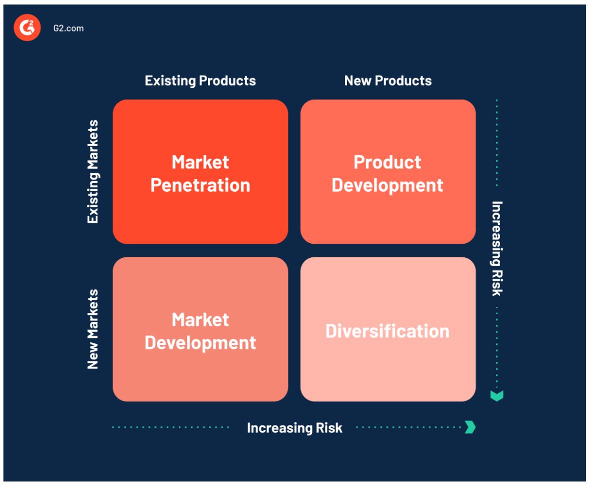
[Total: 20 Marks]

END OF PAPER

CA 2.6 STRATEGIC BUSINESS ANALYSIS SUGGESTED SOLUTIONS

SOLUTION ONE

(a) The Ansoff Matrix (Product Market expansion strategy)



Ansoff's matrix is a marketing tool used by marketers who aims for organizational growth. It also gives strategic choices to reach the goals. This matrix has four main categories which are Market Penetration, Market Development, Product Development and Diversification.

- *Market Penetration*

Trade Kings breaks through the market by creating new products and services to increase its market share and catch the non-users' attention. Trade Kings aims to create a connection between their products and the impact their products make on people's lives. From the promotion of affordable hygiene with Yebo Carbolic soaps, the health benefits of MediHerb Ayurvedic herbal soaps and the antibacterial family protection of Hygienix hygiene soap, to the livelihoods that selling our confectionary lines like Amazon and Milkit creates. They expand by focusing on how their products in the lives of their customers- and tis inspire their business approach, culture and way of thinking.

- *Market Development*

TradeKings' strategy on market development requires more capital for its research and development. Since 1995, Trade Kings is now celebrating 28 years of high quality, trusted and affordable products, our portfolio has grown dramatically and the group has diversified extensively. Today, Trade Kings is a globally competitive group of businesses driven by global standards, manufacturing practices and an aggressive research and development agenda which has led to the high levels of innovation, constant improvement and a host of highly specialized, technically advanced products in recent years.

- *Product Development*

Although the competitors of Trade Kings are creating innovative products, the company has been able to keep its fan base through customer satisfaction and innovation and quality service. Since its first product, Blue Boom detergent Paste and the establishment of the now iconic BOOM brand, Trade Kings has developed a portfolio of many of the foremost brands in the Zambian and southern African markets across the categories and sectors in which it operates.

.

- *Diversification*

Trade Kings has branched out vastly since it started and has become the leader in the industry because of its innovation, distinctive design and modern products and services. The scope of Trade Kings Group today includes four distinct clusters namely: **Food:** Confectionery, biscuits, baking powder, custard powder, castor sugar, soya fillets, spice mixes, breakfast cereals, infant cereals, potato crisps and maize snacks. **Beverage:** Maheu, Chibwantu, milkshakes, instant coffee and tea beverages, carbonated soft drinks, energy drinks, juices, milk and dairy juice blends. **Laundry, Home and Personal Care Products:** Detergent (powder and paste), bleaches, floor cleaners, toilet cleaners, dishwashing liquids, all purpose creams, scouring powders, window and glass cleaners, bath soaps, hygiene soaps, beauty soaps, hair soaps, glycerine, hand sanitisers, liquid handwashing soaps, antiseptic liquids and fabric conditioners; and **Steel:** Steel re-bar, angles and channels.

The drive for diversification and a belief in the establishment of specialised businesses, to ensure focus and innovation within each category, has led to the Trade Kings Group we know today.

Trade Kings Group is comprised of Trade Kings, Big Tree Beverages, Big Tree Brands (featuring several specialist sub businesses focusing independently on infant nutrition, cereals and baking products and spices), Dairy Gold, Swiss Bake, Yoyo Foods and Universal Mining and Chemicals Limited (UMCIL).

(b) According to Johnson et al (2005), explain three advantages of diversification

(i) Economies of scope as opposed to economies of scale may result from greater use of underutilized resources. These benefits are often referred to as Synergy, and may come from: Marketing Synergy; Operating synergy; investment synergy and Management synergy.

(ii) Corporate management skills may be extendable across a wide range of unrelated businesses. Resources from the corporate parent company can be more intensively utilized.

(iii) Market power can be increased through subdivisions. A high margin business can subsidise a low margin one, enabling it to create a price advantage over it rivals and build market share. Eventually it may achieve dominant positions and enable it to recoup its earlier group losses.

(iv) Response to environment change can be justified as a reason for diversification to protect the shareholder value.

(v) Risk spreading to diversify risk especially for small businesses

(vi) Expectations of powerful stakeholders are met through diversification.

(c) **Vertical and horizontal integration**

(i) **Vertical integration:** is when a firm invest in the next stage of the value chain. It thus becomes its own supplier or distributor. Vertical integration can be forward (downstream) or backward (upstream). This is related diversification.

(ii) **Horizontal integration**: Horizontal integration is when a firm invest in a different product line than has been traditionally known for. It could involve a firm acquiring or merging with another firm selling complementary or substitute products. The acquisition of Masterpork and Zamanita by Zambeef is a good example of horizontal integration. This is unrelated diversification.

(d) Trade Kings should be advised to continue on trajectory of growing through the four approached of the Ansoff Matrix to take advantage of emerging opportunities through innovation and diversification.

SOLUTION TWO

(a) Strategy is the direction and scope of an organisation over the long term, which achieves advantage in a changing environment through its configuration of resources and competences with the aim of fulfillment of stakeholders' expectations.

(b) Important characteristics of strategic decisions include:

(i) Decision about strategy are about to be complex since there are likely to be a number of significant factors to take into consideration and a variety of possible outcome to balance against one another.

(ii) There is likely to be a high degree of uncertainty surrounding a strategic decision, both about the precise nature of the current circumstances and about the likely consequences of any course of action.

(iii) Strategic decisions have extensive impact on operating decision-making: that is, decisions of lower levels in the organisation.

(iv) Strategic decisions affect organisation as a whole and require processes that cross operational and functional boundaries within it. An integrated approach is therefore required.

(v) Strategic decisions are likely to lead to change within the organisation as resource capacity is adjusted to permit new course of action. Changes with implications for organisational culture are particularly complex and difficult to manage.

(c) The elements that are in the expanded definition of the mission advocated by Campbell and Yeung (1991) include:

(i) Purpose – Why does the organisation exist? Who does it exist for?

(ii) Values – which are the beliefs and moral principles that underlie the organisation's culture;

(iii) Strategy – provides the commercial logic for the company, and so addresses the following questions, "What is our business?" "What should it be?"

(iv) Policies and standards of behaviour – that provides guidance on how the organisation's business should be conducted. For example, a service company that wishes to be the best in its market must aim for standards of service, in all its operations, which are at least as good as those found at its competitors.

SOLUTION THREE

(a) Corporate Strategy, Business-level Strategy and Operational Strategy.

(i) **Corporate Strategy** is concerned with the overall purpose and scope of the organisation and how value will be added to the different parts (business units) of the organisation (Johnson et al, 2008). Aspects of Corporate Strategy include:

- Scope of activities- i.e. developing strategy and the impact of strategic management upon the whole organisation.
- Expectations of stakeholders- these must be prioritized and managed.
- Resources- choices of obtaining and allocation of resources

(ii) **Business –level Strategy**: this is about how to compete effectively/ successfully in particular markets. It's about particular and distinct combination of products and markets dealt with by individual business unit. A business unit may be small and independent or part of the larger one. These look at new product development; effective growth strategies, competitive strategies and, marketing mix strategies.

(iii) **Operations Strategy**- these are concerned with how the component parts of an organisation deliver effectively the corporate and business level strategies in terms of resources, processes and people limitations.

(b) Describe Strategic Position, Strategic Choices and Strategic Action

(i) Strategic Position-

This is about how the organisation wishes to position itself in the competitive market for the planning duration. There are three main groups of influences to consider: the environment, strategic capability and expectations of shareholders.

(ii) Strategic Choices-

These are made at Corporate and Business level. At business level, these choices are about how to achieve competitive advantage, and are based on the understanding of customers and markets. At the corporate level, strategy is primarily about scope. This is concerned with the overall product/business portifolio, the spread of the markets and the relationship between business units and the corporate center.

(iii) Strategic Action-

This is about implementation. Plans developed must be pit into action. Issues include: Structuring (how structure, processes and relationships within the organisation work together; Enabling (how resources are managed to support and create strategies; Change (how to manage the change that comes with implementing new plans.

(c) Give five (5) characteristics of long term decisions

(i) They are complex- they take into consideration a number of factors

(ii) They have a high degree of uncertainty both about the nature of circumstances and the likely consequences.

(iii) They have extensive impact on the operational decision-making level

(iv) They use an integrated approach

(v) They leas to change- they challenge the status quo.

SOLUTION FOUR

(a) Napsa investing in a Resort.

(i) Give three disadvantages of institutional investment.

- Excessive market influence- due to the financial muscle, they can influence the price of share of companies of the stock exchange
- Playing Safe-many institutional investors are risck averse. They tend to avoid share in which they see as speculative. They feel they have an obligation to their customers only to invest in 'Blue-chip' companies.
- Short term speculation- fund managers seek short term speculative gains

(ii) Describe three situations institutional investors may intervene in the running of a business and even call for a meeting to attempt to unseat the Board.

- When fundamental concerns about strategy are being pursued in terms of products, markets and investments
- When there is poor operational performance
- When management is being dominated by a smack group of people
- Major failure of internal controls

(b) Describe three (3) financial risks with respect to a firm of your choice and explain the mitigating strategies.

- Credit risk-the risk of the customer defaulting payment when due
- Liquidity risk- the risk of not being able to finance credit of arising from cash restrictions or need for more cash
- Cash management risk- risk arising from security of cash, or risk of unpredictable cash flows.

(c) How are hazards different from Risks?

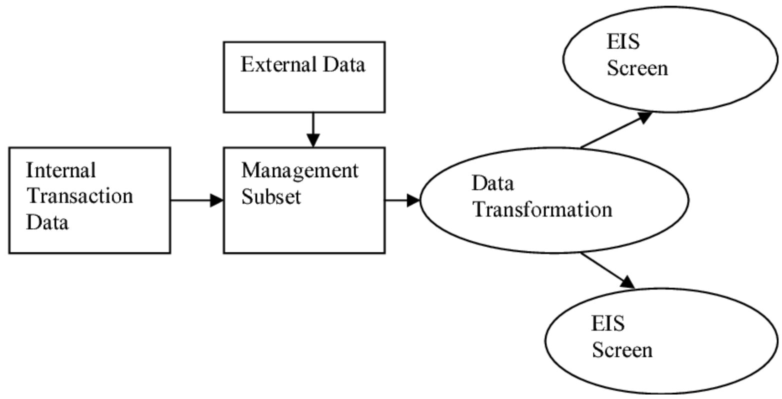
- Risk is the likelihood of a negative event occurring that may hinder to achieve the goals and objectives
- Hazards are possible sources of danger

SOLUTION FIVE

Required:

(a) With the aid of diagram, draw a model of a typical EIS and outline some of its features.

Executive Information System (EIS) model



EIS features:

- Flexibility
- Quick response to time
- Sophisticated data analysis and modeling tools

(b) By using Porters five forces to clearly show how information system can be used by the company to create a competitive advantage

The following can the used to create a competitive advantage using Porters five forces:

Potential entrants:- Technology can reduce the labor cost of manufacturing and speed up the production process so that substantial economies of scale can be created. This can lift entry barriers from new entrants.

Suppliers: Investing in good IT system with a robust data base which can store and scan suppliers can assist to increase competition among suppliers and reduce the bargaining power.

Customers: Marketing data can be store in the data base. This information can be used to analyze and be used to improve the target market effort and hence reduce customer bargaining power.

Substitutes: The organization can reduce threats from substitutes by developing a website and an in-store product database that allows customers to analyze and compare products on offer.

Industry rivalry: organization can have competitive advantage either by Cost leadership, Differentiation and Focus. Information System can help the organization on Cost reduction, differentiation through provision of websites and help to focus activities to trade on two different brands on internet.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ZAMBIA ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA 3.1: ADVANCED FINANCIAL REPORTING

MONDAY 12 JUNE 2023

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

INSTRUCTIONS TO CANDIDATES

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

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

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

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

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

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

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

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

8. Present legible and tidy work.

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

10. Present value and Annuity tables are attached at the end of this paper.

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

SECTION A

This question is compulsory and must be attempted.

<u>QUESTION ONE</u> – (COMPULSORY)

Harmony Ltd is the parent company of a multinational listed group of companies. Harmony Ltd uses the dollar ($) as its functional currency. Harmony Ltd recently acquired 80% of the equity shares of Peace Ltd, a company located in the Southern Region of Zambia on 1 January 2022. The group's current financial year-end is 31 December 2022.

The head office of Peace Ltd is located in Lusaka which uses the Zambian Kwacha (K) as its main currency. However, its staff are spread across various locations. Consequently, half of the staff are paid in Kwacha (K) and the other half are paid in US Dollar ($). Peace Ltd has a high degree of autonomy and is not reliant on finance from Harmony Ltd, nor do sales to Harmony Ltd make up a significant proportion of their income. All of its sales and purchases are invoiced in Kwacha and therefore Peace Ltd raises most of its finance in Kwacha. Cash receipts are retained in Kwacha. Peace Ltd does not operate a US dollar ($) bank account. Peace Ltd is required by law to pay tax on its profits in Kwacha.

Below are the summarised statements of financial position of three entities: Peace Ltd, Love Ltd and Joy Ltd as at 31 December 2022.

Statements of financial position as at 31 December 2022

	Peace	**Love**	**Joy**
	K 'million	**K 'million**	**K 'million**
Assets			
Non-current assets			
Property, plant and equipment	1,150	400	200
Investment in Love	560	-	-
Investment in Joy	60	-	-
Other investment	140	400	200
	1,910	800	400
Current assets	490	200	100
Total assets	**2,400**	**1,000**	**500**
Equity and liabilities			
Equity:			
Equity shares of K1 each	400	320	200
Retained earnings	1,225	440	200
Other reserves	95	-	-
	1,720	760	400
Non-current liabilities	300	80	40
Current liabilities	380	160	60
Total equity and liabilities	**2,400**	**1,000**	**500**

Additional information

i) On 1 January 2019, Peace acquired 80% of the equity share capital of Love for cash consideration of K560 million. At the same date, Peace acquired 70% of the equity share capital of Joy for cash consideration. Peace has correctly recorded both transactions. At this time, the balances on the retained earnings, the fair values of non controlling interests and fair values of the identifiable net assets of Love and Joy were as follows:

	Love Kmillion	Joy Kmillion
Retained earnings	300	120
Fair value of non-controlling interests	140	80
Fair value of net assets	640	310

Any difference between the acquisition date fair value and book value of the identifiable net assets of both investees was due to land. Fair value adjustments should be deemed as temporary differences which are subject to tax of 20%. The fair values of identifiable net assets above are not yet adjusted for tax. Shortly after acquisition, Joy incorporated the fair values (together with any tax effects) into its separate financial statements, but Love had not yet incorporated the fair values into its separate financial statements.

ii) On 1 October 2022, Peace disposed off 40% out of the 70% equity shares of Joy for K220 million. Peace credited the proceeds received to its "Investment in Joy" and debited "Cash". At this time, it was determined that the fair value of the remaining interest was K180 million. Following the sale, Peace could only exert significant influence over Joy.

iii) During the financial year, Peace transferred goods worth K5 million every month to Joy. By 31 December 2022, Joy had not sold the last two months' deliveries and had included them in its year-end inventory. Peace charges three-seventh (3/7) mark-up on all sales.

iv) Peace's receivable balance include K12 million owed by Joy in respect of the last three months' sales. This balance agreed with the corresponding payables in Joy's financial statements.

v) In its separate financial statements, Peace has accounted for its investments in both Love and Joy at cost. It is the policy of Peace group to measure goodwill in full and to record non-controlling interests at fair value at acquisition. Neither goodwill of Love nor that of Joy has suffered any impairment since acquisition.

vi) Peace has two internal business segments: *Construction Division* and *Merchandize Division.* On 1 July 2022, the Construction Division entered into a 1-year fixed price contract to construct an ultra-modern office complex at a contract sum of K60 million for a district government agency located in the Eastern province. Total estimated costs at the time the contract was concluded were K52 million. Actual costs incurred up to 31 December 2022 amounted to K32 million. At 31 December 2022, the Directors of Peace revised its total construction costs on the project to K64 million. No progress payments have been received from the agency. The only entries made have been to include the costs incurred in Peace's inventory. Peace measures progress to completion on the basis of cost.

vii) During the current year, Love and Joy reported profits after tax of K48 million and K40 million respectively. Unless otherwise stated, it may be assumed that profits accrued evenly over the year and that no dividends were paid during the year.

Required:

(a) In accordance with *IAS 21: The Effects of Changes in Foreign Exchange Rates*, explain to the directors of Harmony Ltd, how the functional currency of Peace Ltd should be determined. (5 marks)

(b) Explain the consolidation implication of a *change in group structure* that does not result in *loss of control*. (5 marks)

(c) Prepare the consolidated statement of financial position of the Peace Group as at 31 December 2022. (30 marks)

[Total: 40 Marks]

SECTION B

There are four (4) questions in this section.

Attempt any three (3) questions only

QUESTION TWO

Pizani plc is a retailer of office equipment and its customer base tranverses business entities in a number of industries. In some cases, contracts with customers require total delivery solutions (including initial delivery of the equipment, servicing and refinancing). The company's terms are normally tailored to the individual circumstances of its clients.

Pizani Plc (Pizani) requires advice on how to account for the following transactions in its financial statements for the year to 31 December 2023 including the their deferred tax effects:

Transaction One
Pizani delivered office equipment priced at K2.9 million to a customer on 1 January 2023. The customer made a part payment for the equipment in cash on 1 January 2023 amounting to K0.8 million. The balance will be paid in three equal annual payments of K0.7 million each on 31 December each year with the first being on 31 December 2023.

Further, Pizani has promised to service this equipment over the next three years at no extra cost to the customer. Servicing this type of equipment is normally priced at K0.1 million per annum and settled at end of each period. You may assume that the performance obligations relating to servicing takes place on 31 December each year. Applicable cost of trade finance is 10%.
(10 marks)

Transaction Two
One of Pizani's customers sold equipment to Pizani at a price of K1.2 million on 1 January 2023. The equipment, whose remaining useful economic life on that date was 3 years, was immediately leased back to the customer for a lease term of 3 years. The customer will pay a rental amounting to K0.491 million on 31 December each year over the lease term. Pizani's required rate of return on arrangements such as this one is 11% per annum. For tax purposes, Pizani is able to claim wear and tear capital allowances on the cost of the equipment at 50% per year straight line basis. (10 marks)

Pizani is liable to income tax on all its chargeable profits at 30%.

Required:

Advise the directors of Pizani Plc on the required accounting treatment of the above transactions, showing the relevant amounts to report in the financial statements for the year to 31 December 2023, ***including the deferred tax effects***, in accordance with the IFRS framework.
[Total: 20 Marks]

QUESTION THREE

Unity Garment Ltd (UGL) has enjoyed a significant market share in the Copperbelt region of Zambia over the years. However, UGL has suffered liquidity challenges due to the effects of the pandemic lock down and its subsequent restrictions. UGL's main source of income, dealings in luxurious goods, has reduced significantly because customers have shifted their demand to necessities of life.

The following transactions were undertaken by UGL:

(a) UGL has entered into a contract to sell one of their gold refinery equipment on 31 January 2023 and immediately lease it back. The Finance Director in consultation with the Finance Manager has decided to classify this transaction as a non-current asset "held for sale" in its financial statements for the year ended 31 December 2022 as he rates this transaction as highly probable. The market value for the gold refinery equipment has not changed in many years and is unlikely to change in the foreseeable future.

The contract states that the gold refinery equipment should be disposed off at its fair value of K6 million and for UGL to lease it back over a period of 10 years. It is estimated that K400,000 is needed to refurbish the gold refinery equipment and there is no legal requirement to do so. UGL has in error, treated this amount as a reduction of the asset's carrying amount at 31 December 2022 and the corresponding debit has been made to profit or loss. The gold refinery equipment is depreciated at 5% per annum using the reducing balance method and at 31 December 2022, the carrying amount after depreciation and deduction of the proposed cost of refurbishment is K3.6 million.
(7 marks)

(b) UGL has established a chain of business franchises. This franchise was obtained from a foreign company. In this arrangement, dealers in luxury items, especially refined gold obtain a franchise under a brand name "Kagem" from UGL to sell its own refined gold. The budgeted costs of obtaining a franchise from a foreign company are based on the estimated revenues from the franchise given out to local companies. These costs of obtaining a franchise are then capitalised as an intangible asset and called "Franchise cost".

The Finance Director is convinced that the franchise is consumed as Franchisees produce their own refined gold. UGL currently amortises the franchise based on estimated future revenues from the franchise. For example, where the franchise is estimated to generate K1.6 million of revenue in total and K800,000 of that revenue will be generated in year one, the intangible asset will be amortised by 50% in year one. However, industry practice is to amortise the capitalised cost less its recoverable amount over its remaining useful life.
(6 marks)

UGL's franchise registration fee, which is separate from the franchise fee, is treated as an intangible asset and is initially recognised at the fair value of the consideration paid for the registration. Subsequent franchise fee which is paid yearly are subject to negotiation. The franchise contract has an embedded contingent performance conditions where a franchisee may be paid a bonus based on increase in sales. This bonus is an additional contract cost. UGL has reasoned that the only way to determine the value-in-use of the cost of franchise is when a new customer takes over from an existing one who is prepared to sell his franchise. This treatment is what prevails in the industry. (7 marks)

Required:

In accordance with International Financial Reporting Standards, **discuss** the appropriate accounting treatment of the above transactions in the financial statements of UGL.

[Total: 20 Marks]

QUESTION FOUR

Issue of Loan Notes

On 1 January 2023, Kefe plc issued two million K100, 10% loan notes at a premium of 3.84%. Issue costs amounted to 1% of the gross issue proceeds. Periodic interest on the notes is paid on 31 December each over year. The notes have an original term to maturity of three years and are redeemable at par upon maturity. The specific market interest rate on the notes (the interest rate that reflects Kefe's credit rating) was 8.5% on 1 January 2023, whilst the general market interest rate for this type of debt was 9.5% on that date. The notes are part of a portfolio of assets and liabilities whose performance is evaluated by reference to changes in fair value. Consequently, Kefe plc has designated the loan notes as a fair value through profit or loss (FVTPL) liability. On 31 December 2023, the specific market interest rate on the notes (the interest rate that reflects Kefe's credit rating) was 9.8% whilst the general market interest rate was 10.5%.

(10 marks)

Investment in loan Asset

Kefe Plc advanced K20 million to a third party on 1 January 2022 at an interest rate of 15% of the principal. Transaction costs paid by Kefe Plc on 1 January 2022 amounted to 1% of the principal giving Kefe an original effective interest rate on the loan of only 14.66%. The contract requires the third party to pay interest for each year on 31 December over the loan tenure. According to the agreement, interest accruing in earlier periods does not attract any interest in subsequent periods. The principal amount of the loan matures for repayment on 31 December 2025. Kefe does not have a policy to transfer loan assets to third parties.

Kefe Plc had provided for a loss allowance on the loan asset of K0.1 million at 31 December 2022. The interest due on 31 December 2022 was duly received on that date. The interest due on 31 December 2023 has not been received on that date. Kefe is virtually certain that the interest for the year to 31 December 2023 will be received on 31 March 2024. Arising from the default in respect of the interest for the year to 31 December 2023, Kefe has estimated that the probability that all the remaining cash flows on the loan will be received on the contractual due dates is only 60%, otherwise all these future cash flows will also be received three months late. (10 marks)

Required:

Advise the directors of Kefe Plc on the required accounting treatment of the above transactions showing the relevant amounts to report in the financial statements for the year to 31 December 2023 in accordance with the IFRS framework.

[Total: 20 Marks]

QUESTION FIVE

Azimai Plc is a company which trade its ordinary shares on the Chipata Stock Exchange. Below are the statements of profit or loss for the year ended 31 December 2022 and for the first three quarters in 2022 published in line with the Chipata Stock Exchange regulations:

Statements of profit or loss of Azimai Plc

	Year ended 31 December 2022 (audited)	**Quarter 3 (unaudited)**	**Quarter 2 (unaudited)**	**Quarter 1 (unaudited)**
	K'million	**K'million**	**K'million**	**K'million**
Revenue	2,829	544	810	624
Cost of sales	(1,754)	(346)	(489)	(412)
Gross profit	1,075	198	321	212
Other operating income	72	32	21	23
Administrative expenses	(572)	(94)	(183)	(146)
Distribution costs	(265)	(73)	(62)	(65)
Finance costs	(15)	(11)	(2)	(2)
Profit before tax	295	52	95	22
Tax	(101)	(17)	(31)	(11)
Profit for the year	194	35	64	11

Statement of financial position as at 31 December 2022

	K'million	**K'million**
Non-current assets		
Property, plant and equipment		442
Intangible assets		85
Financial assets		6
		533
Current assets		
Inventories	728	
Trade receivables	476	
Other receivables and prepayments	22	
Cash and bank	492	1,718
Total assets		**2,251**
Equity and liabilities		
Share capital		535
Retained earnings		610
Other reserves		92
		1,237
Non-current liabilities		
Borrowings		304
Current liabilities		

Trade and other payables	501	
Unearned revenues	66	
Provisions	25	
Current tax	118	710
Total equity and liabilities		**2,251**

Additional information

The following ratios have been calculated for the relevant sector for the year ended 31 December 2022:

Return on year end capital employed	18.30%
Return on year end equity	16.05%
Profit (before interest and tax) margin	12.1%
Gross profit margin	43.22%
Current ratio	2.60
Quick ratio	1.25
Assets turnover	1.02
Debt-to-equity ratio	30.50%

Required:

Write a report, to the Board of Directors of Azimai Plc., analysing the financial performance and financial position of the company as the above information permits to assist the Board in determining whether strategic adjustments are required, and where, if any.

[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 SUGGESTED SOLUTIONS

SOLUTION ONE

(a)

In accordance with IAS 21, the functional currency is the currency of the primary economic environment in which the entity operates. With a foreign acquisition, consideration should be given as to whether Peace Ltd should adopt the same functional currency as its parent, Harmony Ltd. However, Peace Ltd appears to be largely independent and is not reliant on Harmony Ltd for either sales or finance. It is not required therefore for Peace Ltd to adopt the same functional currency as Harmony Ltd which in this case is the dollar ($). Peace Ltd does not appear to have transactions in dollars or have a dollar bank account and it can be concluded that the dollar should not be their functional currency.

In determining its functional currency, Peace Ltd should consider the currency which mainly influences its sales price of goods and the currency which mainly influences its labour and other costs. This is likely to be the currency which goods are invoiced in and the currency in which costs are settled. The location of the entity's head office is irrelevant except to the extent that it is likely that the costs of running the head office are likely to be settled in the domestic currency. For Peace Ltd, it appears that the vast majority of their transactions are in Zambian Kwacha (K). All sales and purchases are invoiced in Zambian Kwacha as well as approximately half of their staff being paid in Zambian Kwacha (K). Funds for finance are raised in Zambian Kwacha (K) which further suggests that Zambian Kwacha should be chosen as the functional currency of Peace Ltd.

(b)

The following accounting implications should be noted when an NCI in a subsidiary changes but the same parent retains control:

- When the parent disposes of an interest in the subsidiary, where control is not lost then this is merely a transfer of net assets to the NCI. No gain or loss is recognised when the parent sells shares (so increasing NCI).
- In a step up acquisition where control has already been acquired this will be treated as a transaction between owners. Ownership has been reallocated between parent and non-controlling shareholders. According to revised IFRS 3, it views the group as an economic entity, and views all providers of equity, including NCI, as owners of the group. Accordingly the parent's equity is adjusted (debited/credited). The required treatment is calculated by comparing the consideration paid with the decrease in NCI.

A parent's purchase of additional shares in the subsidiary (so reducing NCI) does not result in additional goodwill or other adjustments to the initial accounting for the business combination.

- In both situations, the carrying amount of the parent's equity and NCI's share of equity is adjusted to reflect changes in their relative ownership interest in the subsidiary.
- Any difference between the amount of NCI adjustment and the fair value of the consideration received or paid is recognised in equity, attributed to the parent.

(c)

Peace Group

Consolidated statement of financial position as at 31 December 2022

Assets:	**Km**
Non-current assets:	
Property, plant and equipment (1,150 + 400 + 20)	1,570
Goodwill (W3)	64
Other investments (140 +400)	540
Investment in associate (W7)	182.1
	2,356.1
Current assets (490 + 200 – 4 (W8))	686
Total assets	**3,042.1**
Equity and liabilities	
Share capital	400
Retained earnings (W5)	1,455.1
Other reserves	95
Total equity attributable to shareholders of parent	1,950.1
Non-controlling interest (W4)	168
Total equity	2,118.1
Non-current liabilities (300 + 80 + 4 deferred tax(W2))	384
Current liabilities (380 + 160)	540
Total liabilities	924
Total equity and liabilities	**3,042.1**

Workings:

1. Summary of percentages

	Love	**Joy**		
	No Change	**Before disposal**	**Disposal**	**After disposal**
Parent's %	80%	70%	(40%)	30%
Non-controlling interests	20%	30%	-	-
	100%	100%		

2. Net assets schedule

	Acq. date Km	**Rep. date Km**	**Post-acq Km**
Love			
Share capital	320	320	-
Retained earnings	300	440	140
Fair value adj. – land (640 – 320 – 300)	20	20	-
	640	780	140
Deferred tax liability (20% x 20)	(4)	(4)	-
	636	776	140

	Acq. date Km	**Rep. date Km**	**Post-acq Km**
Joy			
Share capital	200	200	-
Retained earnings	120	200	80
Fair value adj. – land (310 – 200 – 120)	(10)	-	10
	310	400	90
Deferred tax (20% x 10)	2	-	(2)
	312	400	88

Net assets at disposal date (1 Oct 2021) and post-acquisition movement analysis:

Total post-acquisition movements	88
Less: Profit after disposal (1/10 – 31/12/21) (40 x 3/12)	(10)
Post-acquisition before disposal	78
At disposal (312 + 78)	390

3. Goodwill

Love

	Km
Cost of investment	560
Fair value of NCI at acquisition	140
Fair value of identifiable net assets acquired (W2)	(636)
Goodwill at acquisition and reporting	64

Joy

	Km
Cost of investment (60 + 220)	280
Fair value of NCI at acquisition	80
Fair value of identifiable net assets acquired (W2)	(312)
Goodwill at acquisition and disposal	48

4. Non-controlling interests

	Km
Love	
Fair value of NCI at acquisition	140
Add: NCI % of Love's post –acquisition movements: (20% x 140)	28
NCI at reporting	168
Joy	
Fair value of NCI at acquisition	80
Add: NCI % of Joy's post –acquisition movements:	

Up to disposal (30% x 78)	23.4
NCI at disposal	103.4

5. Retained earnings

		Km
Peace		
Balance b/d		1,225
PUP on inventory (30% x 3/10 x 2mths x 5)		(0.9)
Loss on fixed price contract (W8)	(4)	
Love:		
Parent's share of post-acquisition earnings (80% x 140)		112
Joy:		
Parent's share of post-acquisition earnings		
Up to 1 October 2022 (70% x 78)		54.6
From 1 October 2022 to reporting (30% x 10)		3
Gain on disposal of subsidiary (W6)		65.4
At reporting		1,455.1

6. Disposal of 40% holding in Love

	Km	Km
Fair value of consideration received		220
Fair value of remaining interest at disposal		180
Net assets at disposal (W2)	390	
Goodwill at disposal (W3)	48	
Less: NCI at disposal (W4)	(103.4)	(334.6)
Gain on disposal		65.4

7. Investment in associate (30% remaining – Love)

	Km
Fair value of remaining interest at disposal	180
Add: Parent's share of post-acquisition movements (W5)	3

Less: PUP on inventory (W5)	(0.9)
At reporting	182.1

8. Long-term contract

	Km
Determination of contract profit/loss at 31 December 2022:	
Contract price	60
Less: total contract costs	(64)
Contract loss	(4)

Calculation of percentage of completion as at 31 December 2022

= 32/64 x 100
= 50%

Revenue to recognise for the year (50% x 60)	30
Cost for the year (50% x 64)	(32)
Provision for expected contract losses (50% x 4)	(2)
Loss to recognise within profit	(4)

Contract asset/liability:	
Actual costs to date	32
Less: contract loss recognized	(4)
Contract asset	28

K32m actual cost included within inventory (current assets) would reduce by the recognised loss of K4m to obtain the correct asset value of K28m. Or the K32m can be removed and replaced with the K28m.

SOLUTION TWO

Transaction One

Amounts before deferred tax

This transaction falls within the scope of IFRS 15.

Pizani must recognise revenue from the transaction upon meeting the performance obligations. There appears to be two obligations; delivery of office equipment and servicing of the equipment. Revenue relating to the delivery of the equipment must be recognised on 1 January 2023, its delivery date. The revenue relating to the servicing will be recognised on 31 December each year as the equipment is serviced.

The payments for the equipment must be split into those relating to delivery of the equipment and those for servicing. All amounts relating to servicing are settled promptly on 31 December each year, the dates of servicing. Of the total payments on 31 December each year, the servicing component is K0.1 million. The balance must therefore relate to the delivery of the equipment. All receipts relating to delivery of the equipment must be discounted to 1 January 2023 in arriving at the revenue from delivery of the equipment.

The following amounts will be reported in the FS for the y/e 31.12.23 before deferred tax effects:

	K'm
Revenue from:	
- delivery of equipment on 1.1.23:	
o amount received on 1.1.23	0.8
o amount on 31.12 over next 3 years: (0.7-0.1)X3 year annuity @10%	1.49
	2.29
- Servicing equipment on 31.12.23	0.1
Total revenue for the y/e 31.12.23	2.39
Finance income on trade receivable to report in PL 10%X1.49	0.15
Trade receivable at 31.12.2023 (0.7-0.1)X2 year annuity @10%	1.04

Deferred tax amounts

The deferred tax effects will be recognised in accordance with IAS 12.

IAS 12 requires that deferred tax be recognised on all temporary differences (full provision basis). These are differences between the accounting carrying amounts for recognised assets and liabilities and their tax base amounts, to the extent they have future tax consequences.

With regard to the supply of the equipment, the only asset recognised is the trade receivable with an accounting carrying amount of K1.04 million at 31.12.23. The tax base amount must be the contractual receivable amounting to the overall price of K2.9 million less amounts received to date, K1.5 million ie(0.8+0.7). This gives a tax base amount of K1.4 million. A tax deductible difference arises equal to K0.36 million (accounting base is less than tax base). This therefore gives a deferred tax asset amounting to K0.11 million ie (30%X0.36) with the same amount being a credit to the income tax expense in PL.

Transaction Two

Amounts before deferred tax

The seller/lessee does not appear to transfer substantially all the economic benefits/risks and management and control of the equipment to Pizani. This is because the lease term equals the remaining life of the equipment. It appears the substance of the sale and lease back is a loan arrangement. Pizani will therefore account for a loan asset in respect of the transaction.

The loan receivable will initially be measured at the net investment of K1.2 million. Subsequently, it must be carried amortised cost using the effective interest rate of 11%. The following amounts will be reported in Pizani's FS for the year to 31.12.23:

		K'm
Initial carrying amount of loan asset		1.2
Finance income to report in PL for y/e 31.12.23	1.2X11%	0.132
Cash received on 31.12.23		(0.491)
Loan receivable in SFP at 31.12.23		0.841

Deferred tax amounts

The deferred tax effects will be recognised in accordance with IAS 12.

IAS requires that deferred tax be recognised on all temporary difference (full provision basis). These are differences between the accounting carrying amounts for recognised assets and liabilities and their tax base amounts, to the extent they have future tax consequences.

With regard to the purchase and lease of the equipment, the only asset recognised is the loan asset with an accounting carrying amount of K0.841 million at 31.12.23. The tax base amount must be the income tax value (ITV) of the equipment at 31.12.23. For tax purposes, the equipment is owned by Pizani having been acquired at a cost of K1.2 million on which Pizani will claim wear and tear capital allowances. The ITV of the equipment after wear and tear capital allowances at 31.12.23 amounts to K0.6 million, ie (1.2 less 50%X1.2). A taxable temporary difference will therefore arise equal to K0.241 million ie (0.841-0.6) at 31.12.23. This will give rise to a deferred tax liability at 31.12.23 amounting to K0.0723 million and a corresponding charge in the income tax expense of the same amount.

SOLUTION THREE

(a) This scenario would be accounted using the rules under IFRS 5 Non-current Assets Held for Sale and Discontinued Operations, IAS 37 Provisions, Contingent Liabilities and Contingent Assets and IFRS 16 Leases.

IFRS 5 addresses the accounting for assets which are classified as held for sale. The standard requires a non-current asset to be classified as held for sale if its carrying amount will be recovered principally through a sale transaction rather than through its continuing use.

It must be available for immediate sale in its present condition, and its sale must be highly probable within 12 months of classification as held for sale.

Unity Garments Ltd (ULL) has entered into a firm sales commitment, the price quoted appears reasonable and the sale will occur within the next one month (on 31 January 2023). Therefore, the finance director is on point in his position to classify the equipment as held for sale.

The equipment would therefore be measured at the lower of carrying amount and fair value less cost of disposal, not depreciated any longer and presented under current assets.

However, a sale and leaseback transaction is outside the scope of IFRS 5 and is covered by IFRS 16 Leases.

The K400,000 to be spent on refurbishment of the gold refinery equipment should not be treated as an impairment of the asset's carrying amount at 31 December 2022.

There is no present constructive or legal obligation as a result of a past event and there is no probable payment. UGL may decide not to carry out the refurbishment, especially as the equipment is going to be sold and then subsequently leased back.

Therefore, the K400,000 should be added back to the carrying amount of the equipment and a corresponding credit made to profit or loss. The above is in line with IAS 37.

A sale and leaseback transaction occurs where an entity transfers an asset to another entity and leases that asset back from the buyer/lessor.

The first required criteria of IFRS standards is to determine whether a sale has occurred. Under IFRS 16, an entity must apply the IFRS 15 requirements to determine when a performance obligation is satisfied. If it is concluded that the transfer of an asset is not a sale, then the seller/lessee will continue to recognise the transferred asset. In this event, a financial liability and financial asset will be recognised under IFRS 9 Financial Instruments.

In this case, it seems that a sale will occur on 31 January 2023 because of the binding sale commitment. If the fair value of the sale consideration equals the asset's fair value, and the lease payments are at market rates, there is no need to adjust the sales proceeds under IFRS 16.

UGL should follow IFRS 15 to account for the sale and then apply IFRS 16 to account for the lease. Thus, UGL should account for the sale and leaseback as follows:

- Derecognise the underlying asset.
- Recognise the sale at fair value.
- Recognise only the gain/loss which relates to the rights transferred to buyer/lessor.
- Recognise a right-of-use asset as a proportion of the previous carrying amount of the underlying asset.
- Recognise a lease liability.

UGL should account for the sale and leaseback at 31 January 2023 as follows: Carrying amount of equipment is K (3.6 + 0.4) million = K4 million Assuming the present value of the lease is equivalent to the equipment's fair value at 31 January 2023, right-of-use asset would be equal to the carrying amount (K4 million) of the underlying asset (equipment).

(b) This scenario would be accounted using rules under IAS 38 Intangible Assets. UGL's accounting policy to base the amortisation of the intangible asset for franchise rights on revenue stemming from the rights seems reasonable and systematic. However, IAS 38 Intangible Assets sets out a rebuttable presumption that amortisation based on revenue generated by an activity which includes the use of an intangible asset is not appropriate. This presumption can be overcome when it can be demonstrated that revenue and the consumption of the economic benefits of the intangible asset are highly correlated.

The gold brand embodied in the franchise rights will generate cash flows through the subscription by local companies (sub-franchisees) for the franchise rights and the estimated revenues from the franchise given out to local companies determine the amount to be spent on obtaining the franchise rights from the foreign company.

Therefore, revenue reflects a proxy for the pattern of consumption of the benefits received. Revenue and consumption of the economic benefits of the intangible asset seem highly correlated and therefore a revenue-based amortisation method seems appropriate.

The industry practice method is also acceptable and conceptually sound as it is based on an analysis of the remaining useful life of the rights and the recoverable amount. Such an approach does not contradict IAS 38's prohibition on revenuebased amortisation because it is not based on direct matching of revenue and amortisation.

The useful life of an asset is required to be reassessed in accordance with IFRS Standards at least at each financial year end. Where this results in a change in estimate, this is will be accounted for prospectively from the date of reassessment.

IAS 38 also states that if a pattern of amortisation cannot be measured reliably, the straight-line method must be used.

(c) This scenario would be accounted using rules under IAS 38 Intangible Assets and IAS 36 Impairment of Assets

- When a franchise agreement is concluded and registered, management should make an assessment of the likely outcome of performance conditions. Contingent consideration will be recognised in the franchise's initial registration costs if management believes the performance conditions will be met in line with the contractual terms.

  Periodic reassessments of the contingent consideration should be made. Any contingent amounts which the directors of UGL believe will be payable should be included in the franchise costs from the date management believes that the performance conditions will be met. Any additional amounts of contingent consideration not included in the costs of franchise registration will be disclosed separately as a commitment.

Amortisation of the costs of the contract will be based upon the length of the franchise agreement. The costs associated with the renegotiation of a franchise agreement should be added to the residual balance of the franchise agreement costs at the date of extending the agreement. The revised carrying amount should be amortised over the remaining renegotiated contract length.

- In line with IAS 36, the franchise right should be only charged with impairment if its carrying amount exceeds its recoverable amount, which is given by the higher of the right's fair value less cost of disposal and its value-in-use. Where either of the two cannot be reliably estimated, the known amount becomes the recoverable amount.

  Value-in-use is given by the present value of the future cash flows expected to be derived from continuing use and ultimate disposal of an asset or cash-generating unit. The current industry practice in determining value-in-use for franchise seems to be at odds with the requirements of IAS 36. However, if no clear-cut way out is available, being consistent with the general practice is a welcomed stance under IAS 8.

  There is the need to determine whether it is possible to estimate value-in-use for franchise rights as individual asset or as part of a cash generating unit. To a large extent, it appears franchise right will most likely not be able to generate cash inflows that are largely independent of other assets of an entity. Hence, it may be more appropriate to include the rights in a cash generating unit for impairment assessment.

SOLUTION FOUR

Issue of Loan Notes

The loan notes will be accounted for in accordance with IFRS 9.

The notes are a non derivative liability correctly classified as a FVTPL item. They will therefore be initially measured at FV excluding transaction costs. Transaction costs must be charged/reported in PL for the year of issue ie y/e 31.12.2023. Subsequently, the notes will be measured to fair value each reporting date. Remeasurement gains and losses are primarily reported in PL. However, any gains or losses due to changes in the credit worthiness of Kefe must be reported in OCI.

Amounts to report in FS for the y/e 31.12.23 are as follows:

1. Fair value to report as carrying amount at 31.12.23:

Estimate as PV of future loan note cash flows discounted at the current specific interest rate of 9.8%. This gives the following:

		K'm	
Interest cashflows	([1.098^-1]+[1.098^-2]X10%X2X100	34.8	
Principal	[1.098^-2]X2X100	165.89	
	Fair value to report as carrying amount in SFP at 31.12.23		200.69

2. Amounts to report in the SPLOCI:

				K'm	
PL	Finance costs	1.0384X100X2X0.085		(17.65)	
		Remeasurement gain			3.19
	Transaction costs		1%X1.0384X100X2	(2.08)	
				(16.54)	
OCI					
	Remeasurement gain			1.45	

Working – remeasurement gain/loss to report in PL or OCI

Initial carrying amount 1.1.23		1.0384X100X2	207.68
Finance cost for the year			17.65
cash paid	31.12.23	10%X2X100	(20)
Carrying amount at 31.12.23 before remeasurement			205.33
(Gain)/loss to report in PL (balance)			(3.19)
Expected FV at 31.12.23 without change in Kefe's credit rating(W)			202.14
Gain/loss to report in OCI (balance)			(1.45)
Actual FV reported at 31.12.2023			200.69

Working – Expected FV at 31.12.23 without a change in Kefe's credit rating:

Expected specific market interest assuming percentage change in general interest rates equals percentage change in specific market interest rate:

10.5/9.5X8.5	9.39%

Expected FV

		K'm	
Interest cashflows	([1.0939^-1]+[1.0939^-2]X10%X2X100	35.00	
Principal	[1.0939^-2]X2X100	167.14	
expected FV at 31.12.23			202.14

Investment in loan Asset

The loan asset must be accounted for in accordance with IFRS 9. The loan is a debt instrument asset with predetermined contractual cash flows and maturity dates for which the business model is to hold to maturity. Therefore, the loan asset is classified as an amortised cost asset. The loan asset will therefore be initially measured at fair value including transaction costs. Subsequently, the loan asset will be measured at amortised cost.

Further, Kefe must carry out impairment reviews in accordance with the IFRS 9 Credit losses approach and recognise allowances for losses and impairment losses. The default on 31.2.23 and subsequent delay in contractual cash flows is an indication of possible impairement of the loan asset. Kefe must therefore carry out an impairment review asat 31.12.23. All results from the loan asset will be reported in PL.

Amounts to report in the FS for the y/e 31.12.23 will be computed as follows:

		K'm
Initial carrying amount of loan asset at 1.1.22	20X1.01	20.2
Finance income y/e 31.12.22 14.66%X20.2		2.96
Cash received 31.12.22	20X15%	(3)
Gross carrying amount c/d 31.12.22/ b/d 1.1.23		20.16
Finance income to report in PL for 31.12.23	14.66%X20.16	2.96
Cash received 31.12.23	(defaulted)	(-)
Gross carrying amount at 31.12.23		23.12
Loss allowance b/d 1.1.23		(0.1)
Net carrying amount before impairment review at 31.12.23		23.02
Impairment loss to report in PL for y/e 31.12.23		(0.27)
Carrying amount to report after impairment review		22.75

Working – Impairment review

	K'm
Net carrying amount before impairment review	23.02
Expected Recoverable (W)	22.75

Impairment loss	0.27

Working – Expected recoverable amount

Possible Scenario	Probability	Recoverable amount K'm	Expected recoverable amount K'm
Without further default	60%	23.01	13.81
Further defaults	40%	22.34	8.94
Expected recoverable amount			22.75

Working - Recoverable amounts

1. Without further default

Cashflow	Amount K'm	Expected date of receipt		PV K,m
31.12.23 interest (15%X20)	3	31.3.24	3X(1.1466^-0.25)	2.90
31.12.24 interest	3	31.12.24	3X(1.1466^-1)	2.62
31.12.25 interest	3	31.12.25	3X(1.1466^-2)	2.28
Principal	20	31.12.25	20X(1.1466^-2)	15.21
Recoverable amount				23.01

1. With further default

Cashflow	Amount K'm	Expected date of receipt		PV K,m
31.12.23 interest (15%X20)	3	31.3.24	3X(1.1466^-0.25)	2.90
31.12.24 interest	3	31.3.25	3X(1.1466^-1.25)	2.53
31.12.25 interest	3	31.3.26	3X(1.1466^-2.25)	2.21
Principal	20	31.3.26	20X(1.1466^-2.25)	14.70
Recoverable amount				22.34

SOLUTION FIVE

Report

To : Board of Directors of Azimai Plc
From : Accountant
Date : 10 July, 2023
Subject : Analysis of the financial performance and position of Azimai Plc

This report discusses the financial performance and position of Azimai Plc for the year ended 31 December, 2022, relative to its sector average on the basis of profitability, liquidity, and gearing ratios.

Profitability

This is concerned with how well resources are deployed to generate income for investors and other providers of capital. It is about how efficient and effective operational costs are controlled while maximizing the use of the firm's assets to generate sales for the business. Profitable companies are the ones who maximize revenue without compromising on effective cost controls.

Return on capital employed measures how well capital is used to generate profits for shareholders and creditors. Azimai Plc's ROCE of 20.13% marginally topples that of the average firm (18.3%). This implies that Azimai Plc is better at committing its resources to use than its competitors. A higher ROCE signifies more judicious use of capital introduced by fund providers. ROCE should be higher than the
company's capital cost; otherwise it indicates that the company is not employing its capital effectively and is not generating shareholder value.

A critical look into the ROCE ratios revealed, that Azimai's better showing is basically due to better asset utilization, rather than to its margins. The company turns its net assets over little less than twice into revenue, compared to the average competitor's 1.02 times. Thus, the company is more efficient than competitors in allocating resources to generate sales.

Profit margins have not been as impressive for Azimai as its turnover, when compared to the sector. Both gross profit margin and operating profit margin have fallen. Gross profit margin of 40%, compared to the sector's 43.22%, suggests that Azimai Plc has underperformed its competitors in keeping costs of production under control. Deeper analysis on Azimai's quarterly results for the current period reveals interesting relationships. The company could not keep costs below 60% in any of the four periods with exception of the last quarter which produced the highest revenue and the lowest cost to sales ratio. The first quarter proved to be the least profitable.

The poor gross margins seem to have fed into operating margins. Azimai's operating profit margin of 10.96% compares less favourably with that of the average player (12.1%) within the sector. This suggests that Azimai is also not as good at managing operational expenses. The quarterly analysis shows that if not for the far poor showing in the first quarter where the margin is only 3.85%, the
impressive performance (14.81%) in the final quarter would have led Azimai coming on top of its competitors in managing operational costs.

Unlike ROCE which could not be adversely affected by poor margins, return on equity of Azimai (15.68%) is slightly below that of the average firm (16.05%). The lower return on equity means Azimai is less able to apply funds attributable to equity holders to generate profit for shareholders. Thus, investors would find competitors as better users of equity capital than us.

Liquidity

Liquidity ratios depict how capable an entity is in using its current assets to meet its current liabilities (including any long-term liabilities that have less than one year to mature).

Current ratio shows well current liabilities are covered by current assets of an entity. The higher this ratio the higher the firm's ability to meet its current liabilities with its available current assets, and vice versa. With current ratio of 2.42, Azimai is less liquid than its competitors (2.60). This means Azimai is less able to meet its short-term obligations with its current assets. For every K1 of current liability, Azimai has K2.42 available to pay for the debt, relative to the average player's K2.60.

However, quick ratio which is a stricter measure of liquidity places Azimai ahead of competitors. For every K1 of current obligations, Azimai has K1.39 quick assets (current assets without inventories) available to meet them. It thus appears competitors maintain a higher level of inventories than Azimai.

Gearing

Gearing ratio compares a company's level of long-term debt to its equity capital/capital employed. The ratio helps to know the level of financial risk or financial stability of an entity. Generally, a lower gearing ratio means lower financial risk. The use of debts is not necessarily bad especially for highly profitable
companies whose returns are far greater than interest costs. Azimai's 24.6% debt to equity ratio compares more favorably than the average firm's 30.5%. This indicates that Azimai employs only 24.6 Ngwee was for K1 of each equity capital used, compared to the average firm's 30.5 Ngwee was, hence, Azimai is lowly geared and less financially risky than competitors.

Conclusion

From the analysis and discussion above, it is clear that profitability performance has been generally bad. The various margins have been poor and thus shown that the firm's cost controls have not been apt. But in terms of efficiency and gearing, Azimai has done better while liquidity paints a mixed picture.
For clarification on any of the above points raised, I am ready to avail myself.

Respectfully.
(Signed)

Accountant

Appendix

Ratios	Formula	2022	Sector
Return on year end capital employed	(Operating profit ÷ Capital employed) x 100 (310 ÷ 1,541) x 100**= 20.13**		**18.3%**
Return on year end *equity*	(PAT – pref. div) ÷ Shareholders' fund x 100 (194 ÷ 1,237) x 100**= 15.68%**		**16.05%**
Profit margin	(Operating profit ÷ Sales) x 100 (310 ÷ 2,829) x 100**= 10.96%**		**12.1%**
Gross profit margin	(Gross profit ÷ Sales) x 100 (1,075 ÷ 2,829) x 100 **= 38%**		**43.22%**
Current ratio	Current asset ÷ Current liabilities 1,718 ÷ 710 **=2.42**		**2.60**
Quick ratio	Current asset less Inventory ÷ Current liabilities (1,718 - 728) ÷ 710 **=1.39**		**1.25**
Assets turnover	Sales ÷ Capital employed 2,829 ÷ 1,541 **=1.84**		**1.02**
Debt/equity	Long-term loan ÷ Equity x 100 (304 ÷ 1,237) x 100**= 24.6%**		**30.50%**

Quarter	**4th**	**3rd**	**2nd**	**1st**
Revenue size	30.08%	19.22%	28.63%	22.06%
Cost of sales/revenue percentage	59.58%	63.60%	60.37%	66.03%
Gross profit margin	40.42%	36.40%	39.63%	33.97%
Overheads-to-sales	25.15%	30.70%	30.25%	33.81%
Operating profit margin	14.81%	11.58%	11.98%	3.85%

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ZAMBIA ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA 3.2: ADVANCED AUDIT AND ASSURANCE

THURSDAY 15 JUNE 2023

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

INSTRUCTIONS TO CANDIDATES

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

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

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

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

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

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

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

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

8. Present legible and tidy work.

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

10. Present value and Annuity tables are attached at the end of this paper.

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

SECTION A

This question is compulsory and must be attempted.

QUESTION ONE – (COMPULSORY)

You are the Audit Manager on the audit of the financial statements of Motor Manufacturing Co. for the year ended 31 March 2023. You have just had a pre-audit meeting with the management of Motor Manufacturing Co. at which the recently recruited Chief Financial Officer (CFO) expressed concern over the operating expenses of the company.

The company has had no Chief Financial Officer (CFO) for the past six (6) months since the sudden resignation of the former Chief Financial Officer (CFO). The new Chief Financial Officer (CFO) is concerned that the audit fee has been increasing over the past three (3) years to the level where it is now four percent (4%) of the operating expenses. He has strongly recommended a reduction in the audit fee because of increased computerization of the company operations and that the firm could take advantage of big data and data analytics in order to cut its own costs, the benefits of which should be passed onto the clients.

Motor Manufacturing Co. has been manufacturing a particular brand of motor vehicles for the past twenty (20) years and the target market has been the Government and corporate companies. Private individual customers make five percent (5%) of the total customers of Motor Manufacturing Co. The company has been facing stiff competition in the last three (3) years with the coming onto the market of a leading car manufacturer who brings in a wide range of new cars for sale from its manufacturing plant in South Africa.

There has been a noted decrease in revenue in the current year attributed to some corporate companies switching suppliers of motor vehicles to the new entrant. In view of the poor economic situation in the country and the coming in of a new Government, the Government has undertaken austerity measures with a view to cut down on cost of running Government. One (1) of the measures taken by the Government is that it will no longer buy new off-road vehicles and opt for smaller vehicles which are much cheaper. Further, the Government in the year under review lifted the ban on the importation of used cars from Japan. With reduced budget allocations, most Government departments and ministries will opt to import cheap used cars rather than buy brand new vehicles.

Due to increased operational costs, Motor Manufacturing Co. recently imported components for its motor vehicles from cheaper sources in the Far East. There has been a noted increase in customer complaints due to high incidences of breakdowns arising from poor quality components.

In the current year, an investigation undertaken arising from a road accident involving a vehicle manufactured by Motor Manufacturing Co. revealed that a key component of the motor vehicle suspension did not meet the minimum standards required thereby increasing the risk of accidents to motorists. The department responsible for quality control demanded that all vehicles that were fitted with the substandard component should be recalled and the part replaced. At the period end, only twenty percent (20%) of the vehicles with the substandard component had been returned for replacement of the part. The conditions of sale of the vehicles by Motor Manufacturing Co. is that the company gives a two (2) year warranty for all vehicles during which period free maintenance is undertaken by the company. The financial statements of Motor Manufacturing Co. have an amount of K1.2 million as warranty provision.

At a recent regional meeting for heads of state, the urgency of migrating from carbon fuel driven vehicles to electric cars was discussed. It was agreed at this meeting that all countries should pass the necessary legislation giving a timeframe within which car manufacturers would migrate from manufacturing carbon fuel driven vehicles to electric vehicles. It was emphasized that the region must not be left behind in the need to protect the environment and must avoid a transport crisis which could result due to non-migration to electric vehicles.

In the year under review, Motor Manufacturing Co. spent significant amounts of money on research and development with a view to develop vehicles that will be compliant with new requirements. Chris is a specialist that was recruited three (3) years ago and he heads the research department. There is increased demand for skilled labor in electric vehicles and Chris has demanded an increase in his salary and significantly improved conditions of service, failure to which he would resign from employment.

During the year, Motor Manufacturing Co engaged Real Estate Ltd to carry out a revaluation of its two (2) properties.

1. Property one (1) was revalued for the first time, two (2) years ago and there was a revaluation loss of K1.3 million which was charged to the profit or loss account. The current year revaluation shows a revaluation surplus of K1.9 million.
2. Property two (2) is being revalued for the first time in the current year resulting in a revaluation surplus of K1.1 million.

The results of the current year revaluations have been incorporated in the financial statements.

You are leading a team of four (4) auditors to carry out the audit of the financial statements of Motor Manufacturing Co. In addition to performing substantive audit procedures on all material amounts, you wish to place reliance on internal controls in designing the nature and extent of further audit procedures.

Required:

(a) (i) Explain the relationship of financial statements assertions and the audit

procedures that will be performed in the audit of the financial statements of Motor Manufacturing Co. (2 marks)

(ii) Explain the purpose of performing tests of controls when the auditor is required to perform substantive procedures on all material amounts in an audit of financial statements. (4 marks)

(iii) Describe the meaning of substantive tests in the audit of the financial statements of Motor Manufacturing Co. clearly explaining the objectives of these procedures. (3 marks)

(b) (i) Discuss the argument by the Chief Financial Officer (CFO) that the audit fee should be reduced in view of the advantage of big data and data analytics that the firm can take advantage of. (4 marks)

(ii) Explain the impact of big data and data analytics on sampling risk. (4 marks)

(c) Describe four (4) audit procedures for land and buildings in the audit of the financial statements of Motor Manufacturing Co. (8 marks)

(d) Identify and explain five (5) business risks in Motor Manufacturing Co. (5 marks)

(e) Identify and explain five (5) audit risks in the audit of the financial statements of Motor Manufacturing Co. and suggest suitable safeguards that should be applied. (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 are planning the audit of the financial statements of Njanji Plc for the year ending 31 December 2022. Due to a tight reporting schedule, you conducted an interim audit at which you carried out audit planning procedures and limited substantive audit procedures for the first half of the year. The substantive audit procedures for the remaining period will be done at the final audit visit together with the review of the audit work done.

The Engagement Partner suggested to you that, as much as possible, you should use analytical procedures in addition to other methods of obtaining evidence. He makes extensive use of analytical procedures when reviewing working papers.

Required:

Describe the use of analytical procedures in the three (3) stages of an audit clearly explaining the objective of their use in each stage.
(6 marks)

(b) The Twiza group of companies comprises a parent company and two (2) subsidiaries based in foreign countries. The year end of the parent company and one (1) subsidiary is 31 December. Twiza group of companies acquired eighty percent (80%) of the shares in another company during the year.

The country in which the existing subsidiary is based has not yet adopted the International Financial Reporting Standards (IFRSs) in the preparation of financial statements. The country in which it is based has its own accounting standards which the subsidiary follows but are not similar with the international standards. As a result of this, there are disparities in some accounting policies adopted by this subsidiary with those of the parent company. The financial statements of subsidiaries are audited by local audit firms in their respective countries.

The subsidiary acquired during the current year is based in a country which follows the International Financial Reporting Standards (IFRSs). The subsidiary is audited by a local firm of chartered accountants. The auditors in this country are not regulated and do not perform audits in accordance with International Standards in Auditing (ISAs).

You work for Bruce & Associates Chartered Accountants who are the auditors of the parent company. Your firm has been appointed auditor of the group financial statements. At a pre audit meeting with the group management, there was concern from one (1) of the managers on why group financial statements should be audited in addition to the parent and subsidiary financial statements having already been audited by their respective auditors. Each of the subsidiaries maintains financial statements in the currency of the home country. The consolidated financial statements will be in the currency of the parent company.

You are planning the audit of the consolidated financial statements of the Twiza group of companies. The subsidiary acquired in the year under review is a significant component from the point of view of the group.

Required:

(i) Describe four (4) matters that Bruce & Associates Chartered Accountants should consider in the audit of the consolidated financial statements. (8 marks)

(ii) Explain the responsibility for the opinion of the separate financial statements of the parent and the subsidiaries with that of the consolidated financial statements. (2 marks)

(iii) Describe the work that should be performed by Bruce & Associates Chartered Accountant on the subsidiary considered as a significant component of the Twiza group of companies. (4 marks)

[Total: 20 Marks]

QUESTION THREE

Your firm of chartered accountants is auditor of Kalomo Plc and you are planning the audit of the financial statements for the year ended 31 December 2022.

Kalomo Plc has been your firm's audit client for the past nine (9) years and during this period, Mwanza has been Engagement Partner and he has gained so much experience such that detection risk is very low. Further, Mwanza is a member of the Board of Directors (BOD) of Impala Ltd, a company in which Kalomo Plc has a significant interest. Kalomo Plc has annual performance targets that should be met and one (1) of these is that management should meet set annual sales targets which form the basis of the bonus payable to all staff.

Your firm has been providing non audit services to Kalomo Plc in the last three (3) years. This has resulted in the company owing the firm a significant amount in audit fees for the previous year. The firm agreed with Kalomo Plc that the outstanding amount should be paid in three (3) equal installments over the next three (3) years.

The following non-audit services have been provided by the firm to Kalomo Plc:

1. The specialized services division of the firm helped in valuing financial instruments in the financial statements. Financial instruments are significant to the financial statements of Kalomo Plc. The firm used staff not involved in the valuation to conduct the audit of financial instruments.

2. The firm has over the years prepared and submitted the tax returns of Kalomo Plc. Further, in the year under review, the firm assisted Kalomo Plc in computing the tax charge for the year and the determination of the deferred tax amount. The amounts involved are significant and the firm used different staff to assist in the computation of the tax figures and the audit of the financial statements.

During risk assessment at the planning stage of the audit, it was observed that the internal control manuals had not been updated in a long time. The results of tests of controls conducted revealed that the system in use is different from the systems recorded and generally internal controls were considered poor. The company holds significant cash amounts every day.

A review of the working papers and reports of the Internal Audit Department of Kalomo Plc shows that the risk of fraud in Kalomo Plc is high. There were many investigations conducted by the internal auditors concerning fraud. You conclude that fraud is a significant risk in Kalomo Plc you decide to obtain the written representations from management, those charged with governance and the Internal Audit Department.

Required:

(a) Identify and explain four (4) fraud risk factors in the audit of the financial statements of Kalomo Plc. (8 marks)

(b) Explain the written representations that the audit team should obtain from management, those charged with governance and Internal Audit Department regarding fraud in accordance with relevant auditing standards. (4 marks)

(c) Identify and explain four (4) ethical matters in the audit of the financial statements of Kalomo Plc and suggest suitable safeguards. (8 marks)

[Total: 20 Marks]

<u>QUESTION FOUR</u>

Kazungula Plc is a manufacturing company in the chemical industry. Kent Chartered Accountants have been its auditors and were appointed auditors for a period of three (3) years. This is the last year of the engagement and the audit for the current year is about to commence. The opinion for the previous year was an adverse opinion which arose following a disagreement with management on the basis of the preparation of the financial statements and a material uncertainty with regards to going concern that existed at the time.

Before commencement of the audit for the financial statements of the year ended 31 March 2023, Kazungula Plc advertised for bids from reputable firms of auditors for offering of audit services. The advertisement indicated that the company wished to engage auditors who will be required to conduct the audit of the current year financial statements. Kent Chartered Accountants inquired of management of Kazungula Plc on why the company wants to replace them before the expiry of their term of office. A Board resolution was made by Kazungula Plc to terminate the contract with Kent Chartered Accountants and the Company Secretary formally wrote to the firm informing it of the decision and that the firm should return property belonging to Kazungula Plc immediately. The letter states that since the audit fee for the previous year audit was paid, the company does not owe Kazungula Plc any money.

You are the partner in charge of client acceptance in your firm of auditors, Rex & Partners. Your firm has been in existence for three (3) years and it has grown from being a two (2) man partnership into a firm with six (6) partners and ten (10) other members of staff. Your client base comprises largely of trading companies and telecommunication companies.

Your firm decided to submit a bid in response to the invitation for bids by Kazungula Plc. The senior members of your firm resolved that although this will be the first time that the firm will be auditing a client in this industry, it should be able to conduct a quality audit and if necessary, staff will undergo training before the commencement of the audit if appointed as auditors by Kazungula Plc. Your firm has three (3) other audit clients with the same year end as that of Kazungula Plc and the audits for their financial statements are due to begin soon.

Kazungula Plc received five (5) bids from interested audit firms including one (1) from Rex & Partners. In view of the tight deadlines requiring that the financial statements of Kazungula Plc should be finalized and the audit report signed by 27 April 2023 in readiness for the Annual General Meeting on 12 May 2023, the Board of Directors (BOD) of Kazungula Plc resolved to nominate Rex & Partners as the new auditors. The Company Secretary of Kazungula Plc formally wrote to Rex & Partners informing them of the appointment and requesting them to confirm acceptance by signing the agreement enclosed in the communication by a specified date.

As Partner in Charge of client acceptance, you received the letter from Kazungula Plc and you are expected to respond as quickly as possible within the timeframe indicated in the letter.

Required:

(a) Discuss the termination of the contract for audit services between Kazungula Plc and Kent Chartered Accountants clearly explaining the professional requirements that should be followed. (4 marks)

(b) Explain the matters that should have been considered before responding to the invitation for bids for offering of audit services by Kazungula Plc. (4 marks)

(c) Explain the matters and actions that should be taken from receipt of the notice of appointment as auditors from Kazungula Plc to the time of making a decision whether to accept the appointment or not. (12 marks)

[Total: 20 Marks]

<u>QUESTION FIVE</u>

Prominent Manufacturer Ltd (Prominent) is an established business in the manufacturing sector. The company has received different awards over the past decade. Prominent's year-end is 30 September 2022. The audit of the financial statements of Prominent is nearly complete and the financial statements and the audit report are due to be signed in a few days.

The following additional information on two (2) material events has been given to the auditor on 3 December 2022:

Event 1

This event occurred on 10 November, 2022. Production at the Hwange factory was halted for one (1) day when a truck carrying dye used in coloring the fabric on mattresses reversed into a metal pylon, crashing the vehicle and causing a dye to spread across the factory premises and into a local river. The Environmental Protection Agency (EPA) of Zimbabwe is currently considering whether the release of the dye was in breach of environmental legislation. The company's insurers have not yet commented on the event.

Event 2

This event occurred on 19 October, 2022. The springs in a new type of mattress have been found to be defective making the mattress unsafe for use. There have been no sales of this mattress as it was due to be marketed in the next few weeks. The company's insurers estimated that inventory worth K600,000 had been affected. The insurers also estimated that the mattresses were only worth K100,000. No claim could be made against the supplier of springs as this company was in liquidation with no prospect of any amounts being paid to third parties. The insurers would not pay Prominent for the fall in value of the inventory as the company was underinsured. This entire inventory was in the finished goods store at the end of the year and no movements of inventory had been recorded post year-end.

Assume that on 10 December 2022, the financial statements and the audit report were signed, and the Annual General Meeting was to take place on 10 January 2023. The Environmental Agency issued a report on 28 December 2022 stating that Prominent was in breach of environmental legislation and a fine of K800,000 would be levied on the company. The amount is material to the financial statements.

Required:

(a) For each of the two (2) events above:

(i) Explain the reporting implication in accordance with IAS 10: *Events after the Reporting Period.* (4 marks)

(ii) Explain the auditors' responsibility and the audit procedures that should be carried out in accordance with ISA 560: *Subsequent Events*. (12 marks)

(b) Explain the additional audit procedures the auditor should carry out in respect of the fine by the environmental agency. (4 marks)

[Total: 20 Marks]

END OF PAPER

CA 3.2 ADVANCED AUDIT AND ASSURANCE SUGGESTED SOLUTIONS

SOLUTION ONE

(a) (i) **Financial statement assertions and audit procedures:**

Financial statement assertions are claims or representations by management concerning the figures and disclosures in the financial statements. The financial statements are required to be prepared in accordance with the relevant financial reporting framework. Management are making representations that the financial statements have been prepared on that basis.

Auditors design and perform audit procedures with a view to test the assertion made by management. In designing the audit procedures auditors will have in mind specific assertions.

For example, one assertion relating to motor vehicles is rights and obligations and the relevant and appropriate audit procedure is to inspect the client's white book to confirm that the vehicles belong to the client company.

(ii) **Purpose of tests of control in an audit:**

The purpose of performing tests of controls by the auditor is to test the effectiveness of the internal controls put in place by management.

The objective of performing tests of control is to enable the auditors to decide whether or not to place reliance on the control in designing further audit procedures as follows:

- If the controls are found to be operating as expected, the auditors may use a combined approach and rely on the internal controls and perform less substantive audit procedures.
- If, on the other hand, the results of the tests of controls show that the controls are not operating as expected, no reliance will be put on the internal controls and the auditors will perform substantive audit procedures only to obtain the evidence required.

(iii) **Purpose of substantive tests:**

The purpose of performing substantive tests is for the auditor to establish if the figures in the financial statements are materially misstated or not.

Substantive tests are required to be performed whether a combined approach is used or not.

(b) (i) **Audit fee and big data and data analytics:**

There is increased use of information technology in modern business and this has increased in view of connectivity of systems arising from increased use of internet.

Auditors can take advantage of big data and data analytics through increased use of Computer Assisted Audit Techniques (CAATs). This means that most of the work that would ordinarily be done manually by auditors can now be done using CAATs.

Ways in which auditors can take advantage of the use of CAATs:
Auditors can use audit software to perform tests of controls and test data to test the operating effectiveness of the system.

Auditors may also not need to test the controls because they may not need to rely on internal controls because of the possibility of testing 100% of the population. There could be cost benefits in doing this.

Conclusion:
Arising from the above, auditors could reduce the cost of audits and the request of the Chief Financial Officer (CFO) could be justifiable and the auditors should consider the benefits of big data and data analytics to the clients.

(ii) **Impact of big data & data analytics on sampling risk:**
Audit risk is the risk that the auditor will reach an inappropriate audit opinion on account of concluding on the population based on sample results. If the auditors perform the same tests on the whole population they may reach a different opinion.

Taking advantage of big data and data analytics, the auditors may test 100% of the transactions rather than just a sample. This means that sampling risk could be eliminated altogether.

Further, the auditors may not need to rely on internal controls because of the fact that 100% testing could be done without auditors requiring to rely on internal controls.

(c) **Audit procedures for revalued land & buildings:**
- Examine title deeds and confirm that the title is in the name of Motor Manufacturing Co.
- Physically inspect the properties to confirm existence.
- Review expenditure relating to maintenance by inspecting relevant supporting documents to confirm that it is correctly classified as revenue expenditure.
- Review the computation of depreciation after revaluation and confirm it is based on the revalued amount to be written off in the remaining period of time.
- If the revaluation was done by an expert engaged by management, verify that the expert is competent to do the work.
- Confirm affiliation of the expert to the professional body that he/she belongs to.
- Inquire of management how the revaluation amounts were arrived at and confirm revaluation deficits/surpluses were correctly accounted for.
- Confirm that the revaluation surpluses/deficits have been correctly posted to the revaluation account and the statement of profit or loss and comprehensive income.
- Confirm that the revaluation surplus for property one (1) is split by crediting profit or loss with K1.3 million and the excess credited to revaluation account.

- Confirm that the full revaluation surplus for property two (2) is credited to the revaluation account being the first time of revaluing the property.

(d) **Business risks in Motor Manufacturing Co.:**

1. Stiff competition
   The arrival on the market of a leading car manufacturer could result in significantly low sales volumes which could impact the company in terms of profitability. The company could face going concern problems if volumes of sales cannot be increased.
2. Government lifting of ban on importation of used cars – The major customer of Motor Manufacturing Co. is the Government and this switch will mean a significant reduction in income. Coupled with the competitor who has entered the market, this will impact on the ability of Motor Manufacturing Co.'s ability to continue operations.
3. The importation of cheap car components from the Far East has resulted in increased customer complaints. This will bring customer dissatisfaction and possibility of customers switching suppliers.
4. Failure by Motor Manufacturing Co. to comply with the law to migrate to electrical vehicles may result in the operating license being withdrawn by the regulatory authorities.
5. Chris who is leading the research department may leave Motor Manufacturing Co. for greener pastures due to high demand for this type of labor. If this happens, then Motor Manufacturing Co. risks failing to migrate to electric cars.

(e) **Audit risk and suitable responses in the audit of Motor Car Manufacturing Co.:**

Audit risk	**Suitable response**
1. Newly recruited Chief Financial Officer (CFO) – Since the Chief Financial Officer (CFO) is new and he is key in the preparation of the financial statements in accordance with the relevant financial regulations. The risk of errors in the financial statements will be higher than if an experienced CFO was present.	Emphasis to the audit team to observe professional skepticism throughout the audit. Close supervision of the work done will need to be done.
2. Stiff competition could result in reduced revenue for Motor Manufacturing Co. which could have implications on the company's going concern status. Going concern has an impact on the basis of the preparation of the financial statements.	During the performance of audit procedures look out for any signs that the company is not a going concern. Further, evaluate the basis of management concluding that the company is a going concern.
3. The Government change in policy to stop buying brand new vehicles opting for second hand vehicles from Japan will affect Motor Manufacturing Co.'s ability to continue operations.	Inquire from management how it thinks it will compete in view of increased competition. Evaluate the ability of the company as a going concern based on management's assessment.

4. The accident that was attributed to a fault in the suspension component could result in legal action against Motor Manufacturing Co. This could result in the company compensating the vehicle owner if the insurance company turn down the claim on account of the defective component.	Inquire from management on the status of the accident and possible claim against the company. Find out the likely claim and adequacy of any provision made in the financial statements.
5. Provision for recalled vehicles The recalling of vehicles with the defective part is a cost that the company must recognize in the financial statements. At the period end only 20% of the vehicles had the spare replaced. Motor Manufacturing Co. requires to make a provision for replacing this component. Provisions in the financial statements may be misstated.	Establish from management what the provision for replacement of the spare part is and determine how much has been provided. Inquire from the technical department of the company the expected cost of the recall of the vehicles and ensure the provision sufficient to meet this cost.
6. Inventory valuation of the defective component – Motor Manufacturing Co. most likely has inventory of the defective component which will be of no use. These inventory should be written off because they cannot be used for any other purpose. The inventory figure will be misstated unless the write down of the correct amount is made.	Attend the year-end inventory count and confirm that inventory of the defective spare has been separately identified and confirm the write off of the stock by verifying the accounting entries.
7. The warranty provision of K1.2 million may be misstated. The company is supposed to provide in the year warranty provision for vehicles sold in the current year. Provisions could be misstated.	Request from management details of how the provision of K1.2 million was arrived at and recalculate to confirm accuracy. Based on the conditions of sale and warranty determine own point estimate of the provision and compare with the provision made by management.
8. Significant amounts spent in research and development – there is a risk that development costs not meeting the conditions for capitalization may be capitalized. Research costs which should be written off to profit or loss may be capitalized.	Obtain details of amounts capitalized and inspect the supporting documents. Inquire from management and ensure that criteria for capitalization met as guided by IAS 38.

SOLUTION TWO

(a) **Use of analytical procedures in the audit of Njanji Plc:**

Analytical procedures are used by auditors at all the three stages of audits namely the planning stage, gathering of evidence stage and the review stage.

Planning the audit

Analytical procedures are one of the methods that auditors use during risk assessment **in accordance with ISA 315 *Assessing the risk of material misstatement through understanding the entity and its environment.***

The objective of using the analytical procedures at this stage of the audit is to enable the auditor gain an understanding of the client company. Correct interpretation of the ratios computed will give an insight of the company and help in assessing risk.

Substantive procedures

Analytical procedures are used at the stage of obtaining audit evidence through audit procedures. The objective of the use of the analytical procedures is to test for material misstatements of the figures in the financial statements. Analytical procedures are used in conjunction with other audit procedures to gather sufficient appropriate evidence.

Review of the working papers

Analytical procedures are used in reviewing the financial statements towards the end of the audit. They are largely used by the Audit Manager and the Engagement Partner in reviewing the draft financial statements. Ratios are computed using the figures in the draft financial statements and these are compared to the expectation per experience and where necessary further investigations are conducted.

(b) (i) **Matters that must be considered in the audit of group accounts:**

1. One (1) of the subsidiaries has a different year-end. The provisions of IFRS 10 will need to be taken into account.
2. The fact that the country in which one (1) subsidiary is based has not adopted the International Financial Reporting Standards. The financial statements of this subsidiary will require adjustments to take into account provisions of International Financial Reporting Standards (IFRSs).
3. The fact that the subsidiaries maintain financial statements in their local currencies and yet the consolidated financial statements are prepared in the currency of the parent company. Issues relating to translation of the local currency financial statements into the currency of the parent company will be considered.
4. The fact that each of the subsidiaries has different auditors from the parent company auditors is a matter that should be considered in the audit of the consolidated financial statements. The financial statements audited by the different auditors will be consolidated together with the parent company financial statements and so the competence of the subsidiary auditors will be a matter of consideration by Bruce & Associates Chartered Accountants.

(ii) **Responsibilities for the opinion:**

The parent company auditors are responsible for the opinion of the individual financial statements of the parent company.

Each of the auditors of the subsidiary companies is responsible for the opinion of the audits performed by them.

The group auditors will be responsible for the consolidated accounts opinion. This is notwithstanding the fact that the consolidated accounts include figures not audited by them.

(iii) **Work on significant component by group auditors:**

- A full audit of the significant component financial statements requires to be done by either the component auditors or the group auditors. This audit should be based on the component materiality level.
- The group auditors should be involved in the risk assessment of the significant component.
- The group auditors will audit specified account balances related to identified risks of the component.
- The group auditors will require to discuss with the component auditors the susceptibility of the component to material misstatement of the financial statements due to fraud or error
- A review of the working papers of the component auditors relating to significant risks of material misstatement.

SOLUTION THREE

(a) **Fraud risk factors in Kalomo Plc:**

- The performance targets set for the management of Kalomo Plc could motivate the management to falsify the financial statements to show that the targets have been met to justify the bonus.
- Poor internal controls are a fraud risk factors when staff know that the existing controls are ineffective and are unlikely to help prevent and detect fraud.
- Management's attitude of not penalizing staff who commit fraud. This creates a justification for other people to engage in fraudulent activities.
- Holding significant amounts of cash can be an opportunity for fraud. The custodians of the cash will be tempted to use the money hoping to pay it back and may use teeming and lading principles to conceal any misappropriation of cash.

(b) **Matters to obtain and inquire from management & TCWG:**

ISA 240 *The auditor's responsibilities relating to fraud in an audit of financial statements gives guidance* on the matters auditors should inquire about relating to fraud from the following

Information from management:

- Management's assessment of the risk of fraud that could affect the financial statements.
- Specific risks of fraud that management is aware of or that has been brought to the attention of management.
- Management's communication regarding fraud identification and responses to those charged with governance
- Communication of management to staff concerning business processes and ethical behavior.
- Inquire from management of any actual fraud that they are aware of or suspected fraud affecting the company.

Information from TCWG:

- Obtain an understanding of how TCWG gives oversight to management regarding the risk of fraud.
- An understanding of how TCWG oversees how management internal controls established to mitigate the risk of fraud are monitored.
- Find out if TCWG have any knowledge of actual, suspected or alleged fraud affecting the entity.

Information from internal audit:

- Find out from internal audit whether they have any knowledge of fraud actual or suspected or alleged fraud affecting the company and
- Obtain the view of internal audit about the risks of fraud.

(c) **Ethical matters in the audit of Kalomo Plc.:**

Ethical matters	Safeguards
1. Mwanza has been Engagement Partner for Kalomo Plc for the past nine (9) years. This creates a familiarity threat in that the partner is now familiar with the staff of Kalomo Plc.	The firm should put policies so that partners and other senior audit team members are rotated. Guidance states that one (1) should not be engagement partner for the same client for a period of more than seven (7) years. Mwanza should be replaced with another partner.
2. Mwanza is a member of the Board of Directors (BOD) in Impala Ltd, a company in which Kalomo Plc has a significant interest. This gives rise to a self-interest threat to Mwanza and could impact on his objectivity. Impala Ltd is effectively a company under the control of Kalomo Plc.	Mwanza should relinquish his directorship if he is to continue being Engagement Partner of Kalomo Plc or alternatively should be replaced by another partner.
3. Outstanding audit fees for the previous three (3) years gives rise to a self-interest threat and can be viewed like the firm giving a loan to the audit client. The outstanding fees can impact on the independence and ultimately objectivity of the auditors.	The firm should endeavor to collect the outstanding fees. In future, the firm should ensure that fees due are paid before continuing with offering audit services.
4. The firm is providing valuation services to Kalomo Plc and the amount involved is significant. Guidance provides that assurance firms should not provide valuation services to public interest companies as this gives rise to a self-interest threat.	The firm should cease providing valuation services to Kalomo Plc a listed company.
5. Offering of tax services to Kalomo Plc: The preparation and submission of tax returns on behalf of Kalomo Plc does not give rise to any ethical threat provided management takes responsibility for the returns. However, the determination of the deferred tax amount to be included in the financial statements gives rise to a self-review threat.	The firm should cease assisting the company in determination of deferred tax amounts to include in the financial statements. Guidance provides that for public interest companies audit firms should not provide such services. This is despite the fact that different teams assist with the determination of the deferred tax amount and assurance services.

SOLUTION FOUR

(a) **Termination of contract with Kent Chartered Accountants:**

There are professional ethics that should be followed in the removal of office of the auditors. The removal of Kent Chartered Accountants by Kazungula Plc did not comply with the ethical guidance in the following way:

1. The removal of Kent Chartered Accountants was initiated and made by the Board of Directors (BOD). The removal of auditors should be by ordinary resolution of members at the Annual General Meeting (AGM) or Extra-Ordinarily General Meeting (EGM) convened for this purpose.
2. The company should have informed the Registrar of Companies of the removal of auditors within 14 days of the event. There is no indication that Kazungula Plc has informed the Registrar of Companies except to note that the company is in a hurry to appoint new auditors.
3. It is not correct to suggest that Kazungula Plc does not owe any money to Kent Chartered Accountants. The firm is entitled to compensation for termination of contract before the expiry date.
4. Kazungula Plc will be required to send notice of the meeting at which the term of office of Kent Chartered Accountants should have ended.

(b) **Matters to consider before submitting bid:**

1. Rex & Partners should find out if Kazungula Plc will be seeking its first auditors or they are replacing the current auditors.
2. The firm should consider whether it has the resources in terms of manpower and financial resources to undertake a clearly bigger audit.
3. Consideration should be made on whether the it will be able to conduct an efficient audit of a client in an industry that it has no experience.
4. In view of the other clients with the same year end as that of Kazungula Plc consideration of whether the audit can be completed within the timeframe of the deadlines set by Kazungula Plc.
5. The firm may wish to know the directors of Kazungula Plc if they are currently not known.

(c) **Matters and action after appointment:**

1. Consider whether the firm is able to conduct the audit of financial statements for a company in the manufacturing industry.
2. Consider the availability of resources in terms of financial, time and human resources to undertake the audit.
3. Consider whether the pre-condition for an audit exist if not, then the firm should not accept the appointment.
4. Consider the integrity of the management of Kazungula Plc in view of the termination of the contract with Kent Chartered Accountants on account of a disagreement.
5. Seek the permission of the management of Kazungula Plc to communicate with Kent Chartered Accountants to find out if there are any reasons to prevent the

firm from accepting appointment. If permission is not given, then the appointment should be declined.

6. If Kazungula Plc gives a go ahead to communicate with the outgoing auditors, a letter will be written to Kent Chartered Accountants. if Kazungula Plc does not permit Kent Chartered Accountants to respond to the letter, appointment should be declined.
7. If clearance is obtained from Kent Chartered Accountants, the firm should accept appointment and request a copy of the resolution. Management of Kazungula Plc could call for an Extra Ordinary General Meeting (EGM) if the appointment cannot wait until the time of the Annual General Meeting (AGM).
8. Once formally appointed the firms should write a letter of engagement to be signed by both parties.

SOLUTION FIVE

(a) (i) **Reporting Implication**

Event 1

The release of dye occurred after the end of the reporting period, so this is indicative of conditions existing after the end of the reporting period – the event could not be foreseen at the end of the reporting period.

In this case, no adjustment to the financial statements appears to be necessary. However, the investigation by the Environmental Protection Agency (EPA) could result in a legal claim against the company for illegal pollution, so as a material event, it will need disclosure in the financial statements.

Event 2

The problem with the inventory of mattress provides additional evidence of conditions existing at the end of the reporting period as the inventory was in existence and the faulty springs were included in the inventory at this time.

The value of the inventory is overstated and should be reduced to the lower of cost and net realisable value in accordance with IAS 2 Inventories.

An adjustment for this decrease in value must be made in the financial statements. The mattresses should therefore be valued at K100,000 being the net realisable value.

(ii) **Auditors Responsibility**

Event 1

As with event 1, the event takes place before the signing of the audit report, therefore the auditors have a duty to identify material events affecting the financial statements.

The event is after the reporting period but represent new conditions arising and therefore will qualify to be non-adjusting event. If the impact on the financial statements is material, the auditor should ensure adequate disclosure. Where disclosure is not made and the auditor considers disclosure is necessary, modify the audit opinion on the grounds that the Financial Statements did not disclose all the information required. This will be for lack of disclosure (not provision) even though the amount cannot yet be determined.

Alternatively, if the auditor considers that the release of dye and subsequent fine will affect Prominent Manufacturer Ltd's ability to continue as a going concern, draw the members' attention to this in the material uncertainty relating to going concern paragraph of the audit report.

Audit procedures will include:

- Obtain any documentation on the event, for example board minutes, copies of environmental legislation and possibly interim reports from the Environmental Protection Agency (EPA) to determine the extent of the damage.
- Inquire of the directors whether they will disclose the event in the financial statements.
- If the directors plan to make disclosure of the event, ensure that disclosure appears appropriate.
- If the directors do not plan to make any disclosure, consider whether disclosure is necessary and inform the directors accordingly.

Event 2

Auditor's Responsibility

These procedures should be performed as close as possible to the date of the auditor's report and in addition, representation regarding subsequent events should be sought on the date the report was signed. The auditor should ensure that management have accounted for or disclosed subsequent events properly if not the implication on the audit report should be considered.

Audit procedures will include:

- Obtain documentation from the insurers confirming their estimate of the value of the mattresses and that no further insurance claim can be made for the loss in value.
- Contact solicitors/administrators of the spring supplier to confirm that no refund will be expected for the defective springs.
- Obtain the amended financial statements and ensure that the directors have included K100,000 as at the end of the reporting period and that the year-end value of inventory has been decreased to K100,000.
- Review inventory lists to ensure that the defective springs were not used in any other mattresses and that further adjustments are not required to any other inventory.
- Obtain an additional management representation point confirming the accuracy of the amounts written-off and confirming that no other items of inventory are affected.
- Finally, assessing the effect on the audit opinion after the decision of the directors regarding the inventory value is known. A qualified opinion may be required where appropriate adjustments are not made to the financial statements.

(b) **Additional Audit Work**

The notification of a fine has taken place after the audit report has been signed. Audit procedures will include:

- Discuss the matter with the directors to determine their course of action.

- Where the directors decide to amend the disclosure in the financial statements, audit the amendment and then re-draft and re-date the audit report as appropriate.
- Where the directors decide not to amend the disclosure in the financial statements, the auditor can consider other methods of contacting the members. For example, the auditor can speak at the upcoming Annual General Meeting (AGM) to inform the members of the event.
- Other options such as resignation seem inappropriate due to the proximity of the Annual General Meeting (AGM). Resignation would allow the auditor to ask the directors to convene an Extraordinary General Meeting (EGM), but this could not take place before the AGM so the auditor should speak at the AGM instead.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ZAMBIA ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA 3.4: ADVANCED TAXATION

THURSDAY 15 JUNE 2023

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

INSTRUCTIONS TO CANDIDATES

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

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

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

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

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

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

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

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

8. Present legible and tidy work.

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

10. A Taxation table is provided from page 2 to page 6 of the question paper.

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

Taxation Table
Income Tax

Standard personal income tax rates

Income band	Taxable amount	Rate
K0.01 to K57,600	first K57,600	0%
K57,601 to K81,600	next K24,000	20%
K81,601 to K106,800	next K25,200	30%
Over K106,800		37.5%

Income from farming for individuals

K0.01 to K57,600	first K57,600	0%
Over K57,600		10%

Company income tax rates

On income from manufacturing and other	30%
On income from farming	10%
On income from mineral processing	30%
On income from mining operations	30%
On income of Banks and other Financial Institutions	30%

Mineral Royalty

Mineral Royalty on Copper

Norm price range	Incremental value	Mineral Royalty rate
Less than US$4,000	Less than $4,000	4.0% of norm value
From US$4,000 but less than US$5,000	Next $1,000	6.5% of norm value
From US$5,000 but less than US$7,000	Next $2,000	8.5% of norm value
US$7,000 and above	Over $7,000	10% of norm value

Mineral Royalty on other minerals

Type of mineral	Mineral Royalty Rate
Cobalt and Vanadium	8% of norm value
Base Metals (Other than Copper, Cobalt and Vanadium)	5% of norm value
Energy and Industrial Minerals	5% of gross value
Gemstones	6% of gross value
Precious Metals	6% of norm value

Capital Allowances

Capital Allowances

Implements, plant and machinery and commercial vehicles:

Wear and Tear Allowance –	Standard wear and tear allowance	25%
	Used in manufacturing and leasing	50%
	Used in farming and agro-processing	100%
	Used in mining operations	20%

Non- commercial vehicles

Wear and Tear Allowance	20%

Industrial Buildings:

Wear and Tear Allowance	5%
Initial Allowance	10%

Investment Allowance	10%

Low Cost Housing **(Cost up to K100,000)**

Wear and Tear Allowance	10%
Initial Allowance	10%

Commercial Buildings

Wear and Tear Allowance	2%

Farming Allowances

Development Allowance	10%
Farm Works Allowance	100%
Farm Improvement Allowance	100%

Presumptive Taxes

Turnover Tax

Annual Turnover

K0.01 to K12,000	0%
K12,001 to K800,000	4%

Rental income Tax

K0.01 to K12,000	0%
K12,001 to K800,000	4%
On income above K800,000	12.5%

Presumptive tax for transporters

Seating capacity	Tax per annum	Tax per quarter
	K	K
Less than 12 passengers and taxis	1,080	270
From 12 to 17 passengers	2,160	540
From 18 to 21 passengers	4,320	1,080
From 22 to 35 passengers	6,480	1,620
From 36 to 49 passengers	8,640	2,160
From 50 to 63 passengers	10,800	2,700
From 64 passengers and over	12,960	3,240

Property transfer tax

Rate of tax on realised value of land, buildings and shares	5%
Rate on realised value of intellectual property	5%
Rate on realised value of mining right for an exploration licence	5%
Rate of tax on realised value of a mining right for a mining licence	10%
Rate of tax on realised value on a mineral processing licence	10%

Value Added Tax

Registration threshold	K800,000
Standard Value Added Tax Rate (on VAT exclusive turnover)	16%

Customs and Excise duties on used motor vehicles

	Aged 2 to 5 years		Aged 5 years and over	
Motor vehicles for the transport of ten or more persons, including the driver	**Customs duty K**	**Excise duty K**	**Customs duty K**	**Excise duty K**
Sitting capacity of 10 but not exceeding 14 persons including the driver	17,778	22,223	8,889	11,112
Sitting capacity exceeding 14 but not exceeding 32 persons	38,924	0	13,840	0
Sitting capacity of 33 but not exceeding 44 persons	86,497	0	19,462	0
Sitting capacity exceeding 44 persons	108,121	0	43,248	0

	Aged 2 to 5 years		Aged 5 years and over	
Motor cars and other motor vehicles principally designed for the transport of persons including station wagons and racing cars	**Customs duty**	**Excise duty**	**Customs duty**	**Excise duty**
	K	**K**	**K**	**K**
Sedans				
cylinder capacity not exceeding 1000 cc	12,490	10,824	7,136	6,185
Cylinder capacity exceeding 1000 cc but not exceeding 1500 cc	16,058	13,917	8,564	7,422
Cylinder capacity exceeding 1500 cc but not exceeding 2500 cc	16,545	21,508	8,423	10,950
Cylinder capacity exceeding 2500 cc but not exceeding 3000 cc	18,049	23,463	10,528	13,687
Cylinder capacity exceeding 3000 cc	22,561	29,329	12,032	15,642
Hatchbacks				
cylinder capacity not exceeding 1000 cc	10,705	9,278	7,136	6,185
Cylinder capacity exceeding 1000 cc but not exceeding 1500 cc	14,274	12,371	8,564	7,422
Cylinder capacity exceeding 1500 cc but not exceeding 2500 cc	15,041	19,553	8,423	10,950
Cylinder capacity exceeding 2500 cc but not exceeding 3000 cc	16,545	21,508	10,523	13,687
Cylinder capacity exceeding 3000 cc	19,553	25,419	12,032	15,642
Station wagons				
cylinder capacity not exceeding 2500 cc	16,545	21,508	9,024	11,731
Cylinder capacity exceeding 2500 cc but not exceeding 3000 cc	18,049	23,463	13,357	17,598
Cylinder capacity exceeding 3000 cc	22,561	29,329	18,049	23,463
SUVs				
Cylinder capacity not exceeding 2500 cc	21,057	27,374	9,024	11,732

Cylinder capacity exceeding 2500 cc but not exceeding 3000 cc	24,065	31,284	13,357	17,598
Cylinder capacity exceeding 3000 cc	28,577	37,150	18,049	23,463
	Aged 2 to 5 years		**Aged 5 years and over**	
Motor vehicles for the transport of goods - with compression-ignition internal combustion piston engine (diesel or semi-diesel):	**Customs duty**	**Excise duty**	**Customs duty**	**Excise duty**
	K	**K**	**K**	**K**
Single cab				
GVW exceeding 1.0 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.

<u>QUESTION ONE - COMPULSORY</u>

For the purposes of this question, you should assume that today's date is 28 December 2023.

You are the Tax Manager in a firm of Chartered Accountants and your firm has received the following information relating to two of your firms clients COW Plc Group and Pemba Plc:

COW Plc Group

COW Plc is a Zambian resident company engaged in farming. COW Plc holds 80% of the issued equity shares of GOAT Plc and 70% of the issued equity shares of IMPALA Plc both Zambian resident companies listed on the Lusaka Securities Exchange. GOAT Plc and IMPALA Plc are both manufacturing companies. COW Plc also holds 60% of the issued equity shares of ZEBRA Plc a company resident in a foreign country. The currency of the country in which ZEBRA Plc is located is the Dollar ($).

All of the companies in the group prepare financial statements annually to 31 December. All of the companies are registered for Value Added Tax in their respective countries of residence.

The Directors of COW Plc are considering discontinuing the operations of IMPALA Plc due to the poor financial performance of the entity in the recent past. The Directors are planning to cease operations of Impala plc on 31 December 2023. All the assets of IMPALA Plc will be sold out to individuals and companies.

The Directors have estimated that IMPALA Plc will make a loss before taxation of K1,200,000 for the year ended 31 December 2023. This loss is after all the necessary tax adjustments but before capital allowances.

On cessation of operations of IMPALA Plc on 31 December 2023, all of the assets of the company will be sold individually at their market values and all the liabilities settled.

The following information relates to the assets and liabilities of IMPALA Plc:

	Income tax value at 1 January 2023	**Original Cost**	**Market value at 31 December 2023**
	K	K	K
Factory building	600,000	1,500,000	2,600,000
Administration building	800,000	1,000,000	1,600,000
Plant & Machinery	Nil	600,000	240,000
Motor vehicles	350,000	1,400,000	700,000
Inventories	Not applicable	210,000	300,000
Payables	Not applicable	300,000	300,000
12% Bank Loan	Not applicable	1,200,000	1,200,000

The above amounts are exclusive of value added tax where applicable.

The Directors of COW Plc are not sure of the taxation implications arising from the intended plan to discontinue the operations of IMPALA Plc.

Your supervisor has asked you to prepare a report detailing the taxation implications and position of IMPALA plc. The report should be addressed to the Directors of COW plc Group for presentation in their Board of Directors meeting scheduled to take place on 4 January 2023.

Pemba Plc

Pemba Plc is a VAT registered Zambian resident company engaged in manufacturing. The company is an 80% owned subsidiary of BETA Plc, a company resident in a country known as Republic of FairLand (RFL). The currency of the Republic of FairLand is the FairLand Dollar (FL$).

An extract from the statement of profit or loss of Pemba Plc for the year ended 31 December 2023 is as follows:

	Note	K
Revenue		109,964,500
Cost of sales	(1)	(38,700,500)
Gross profit		71,264,000
Operating expenses	(2)	(18,102,500)
Profit from operations		53,161,500
Finance costs	(3)	(35,190,000)
Profit before tax		17,971,500
Income tax expense	(4)	(6,290,025)
Profit for the year		11,681,475

The following additional information is available:

(1) Pemba Plc imported raw materials from BETA Plc at a cost of K2,080,080. Pemba Plc included the goods at this amount in its financial statements when arriving at the profit from operations, in the extract of the statement of profit or loss shown above. The open market value of identical raw materials manufactured by another company in the Republic of FairLand amounted to K1,662,120.

(2) Included within operating expenses are depreciation and amortization expenses for the year ended 31 December 2023 which amounted to K600,200 and K410,200 respectively.

Also included within operating expenses is a fee amounting to K5,200,100 paid by Pemba plc to Beta plc, for management consultancy services provided by the Beta Plc to Pemba plc On 23 December 2023. The fee paid represents the open market value of the services rendered. No other adjustment has been made in respect of the management consultancy fees paid to BETA Plc. BETA plc does not have a tax paying agent in Zambia.

The remainder of the operating expenses are all revenue in nature and allowable for tax purposes.

(3) On 1 April 2023, Pemba Plc obtained a loan from its parent entity, BETA Plc, amounting to K68,200,000 at an interest rate of 27.80% per annum. Pemba Plc has included the interest paid on this loan using this rate, within finance cost in its statement of profit or loss shown above. On 1 April 2023, similar

loans offered by other lending institutions, not related to Pemba Plc, carried interest of 20.20% per annum.

Also included within finance costs is interest expense of K14,219,700 paid on loans obtained from financial institutions not related to Pemba plc and interest on finance lease liabilities amounting to K2,010,700.

(4) The income tax expenses represent the amount of provisional tax paid during the year ended 31 December 2023.

(5) Capital allowances for the tax year 2023, have been agreed to be K4,200,000.

The Directors of Pemba Plc are seeking advice on the income tax implications arising from the above transactions.

Required:

(a) In relation to COW Plc Group, write a report to the Directors of COW Plc which should include:

(i) Advice on the Value Added Tax implications and Property Transfer Tax implications arising from the intended plan to cease operations of IMPALA Plc, supported by appropriate computations of the amounts of any Value Added Tax and Property Transfer Tax arising. (11 marks)

(ii) Advice on the Income Tax implications arising on the cessation of the operations of IMPALA plc, together with a computation of the income tax payable by IMPALA Plc for the tax year 2023. (8 marks)

(Up to 3 marks are available for presentation, structure and effectiveness of the report)

(b) In relation to Pemba Plc, provide advice on the taxation implications arising from the following transactions entered into by Pemba Plc with BETA Plc during the tax year 2023, referred to in notes (1), (2) and (3) above:

(i) Importation of raw materials at a cost of K2,080,080 from BETA plc. (2 marks)

(ii) Payment of a fee of K5,200,100 for management consultancy services provided by BETA plc. (4 marks)

(iii) Obtaining a loan of K68,200,000 from BETA plc. (3 marks)

(c) Compute the amount of the income tax payable by Pemba Plc for the tax year 2023. (9 marks)

[Total: 40 Marks]

SECTION B

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

QUESTION TWO

For the purpose of this question assume today's date is 30 December 2023.

TexCorp International is a multinational company engaged in manufacturing. The company is resident in a country known as Republic of CapeLand. The currency of CapeLand is CapeLand Dollar (CL$). The company decided to invest in Zambia through incorporation of a new company called TexCorp (Z) Limited. TexCorp (Z) Limited has issued share capital of 3,000,000, K1 equity shares, and all the shares are held by TexCorp International. TexCorp (Z) Limited commenced its operations on 1 September 2023.

Philipino Edwardo, the Chief Operations Officer of TexCorp International was transferred from Republic of CapeLand to Zambia to manage the operations of TexCorp (Z) Limited, as a Managing Director on a three (3) year contract commencing 1 September 2023. He arrived in Zambia on 25 August 2023. He is entitled to an annual basic salary of K1,110,000 and a general-purpose allowance of K11,000 per month. He is accommodated in a company owned house for which he pays no rent. If rented out to any other person, the company could have charged gross rentals of K30,000 per month. The house was acquired by the company on 30 July 2023, at a cost of K12,600,000. The company pays for maintenance expenses amounting to K9,100 per month in connection with the house in which Edwardo is accommodated.

Edwardo holds various investments in the Republic of CapeLand. On 15 December 2023, he received dividends from shares he holds in listed companies that are resident in the Republic of CapeLand amounting to CL$5,600 and interest from deposit accounts held with the banks resident in the Republic of CapeLand amounting to CL$3,200. The amount of dividends and interest are net of withholding tax deducted by tax authorities in the Republic of CapeLand at the rate of 30% and 20% respectively. He also received rental income from his property let out in the Republic of CapeLand amounting to CL$11,400. The rental income is net of withholding tax deducted in the Republic of CapeLand at a rate of 24%. All the income received from investments in the Republic of CapeLand was credited to his account held with the Zambian bank.

The Directors of TexCorp International wish to know whether the newly formed company, TexCorp (Z) Limited, constitutes a Permanent Establishment (PE), and whether Edwardo will be regarded as being resident in Zambia for income tax purposes for the year ended 31 December 2023.

There is no double taxation convention between Zambian and the Republic of CapeLand. Any double taxation relief is given unilaterally in Zambia in form of a tax credit against the Zambian income tax. The average mid-exchange rate for the year was K18.10 per CL$1.

Required:

(a) Advise the Directors of TexCorp International of what constitutes a Permanent Establishment and whether TexCorp (Z) Limited will be classified as a Permanent Establishment. (3 marks)

(b) Advise Philipino Edwardo as to whether he will be regarded as a resident for income tax purposes for the tax year 2023. (3 marks)

(c) Advise Edwardo of the tax treatment of the income he received from foreign sources in the tax year 2023. (4 marks)

(d) Calculate the amount of income tax payable by Philipino Edwardo for the tax year 2023. (10 marks)

[Total: 20 Marks]

QUESTION THREE

For the purpose of this question, you should assume that today's date is 1 October 2024.

You are employed in a tax practice and you are dealing with the tax affairs of GNC Ltd, a client of your firm. GNC Ltd is engaged in manufacturing operations and prepares accounts to 31 December. The Directors are preparing for a tax audit which will soon be conducted by the Zambia Revenue Authority on the affairs of the company.

In January 2023, the Directors estimated the provisional taxable profit for the tax year 2023 to be K1,850,000, from an estimated turnover of K5,740,000. However, in February 2023, the directors revised the provisional taxable profits to only K1,450,000 from a revised estimated turnover of K4,360,000, due to poor sales arising from the effect of the corona virus pandemic.

The Directors submitted the return of provisional income on 15 May 2023. The first instalment of provisional income tax relating to the first quarter of the tax year 2023 was also paid on this date. The second instalment was paid on 8 July 2023, whilst the third and fourth instalments of provisional income tax relating to the third and fourth quarters of the tax year 2023, were both paid on 5 January 2024.

The Directors have further informed you that for the year ended 31 December 2023, the company generated a net profit as per accounts of K1,280,000. They calculated the actual amount of income tax for the tax year 2023 based on this net profit figure. They also computed the balance of income tax payable for the tax year 2023, on this basis and paid this on 21 June 2024. They submitted the self-assessment return relating to the tax year 2023 on the same date.

The Directors have provided you with the financial statements for the year ended 31 December 2023 and using these, you have established that the company's actual tax adjusted profit for the tax year 2023, was K1,640,000. After helping them establish the correct tax liability for the company for the tax year 2023, the directors paid any tax under paid on 30 September 2024 and also submitted an amended self-assessment return in respect of the tax year 2023 on this date.

You should assume that the BOZ discount rate is 9.0% per annum where applicable.

Required:

(a) Describe any three (3) procedures the tax inspectors may perform to uncover any hidden income when performing a tax audit on the affairs of GNC Ltd. (3 marks)

(b) Describe any three (3) procedures the tax inspectors may perform to assess the true level of income and tax liability of a taxpayer with incomplete records or insufficient financial records. (3 marks)

(c) Write a report to the directors of GNC Ltd advising them of the company's exposure to penalties and interest on overdue/underpaid taxes and on late tax submission of tax returns on all payments and tax return submissions made up to and including 30 September 2024. (14 marks)

[Total: 20 Marks]

QUESTION FOUR

You are employed by a firm of chartered accountants. You have been presented with the following information relating to two clients of the firm:

QR Plc

QR Plc is a Zambian resident company engaged in mining precious metals which is registered for VAT. The company is listed on the Lusaka Securities Exchange. It is considering increasing its output of precious metals. This will require additional mining equipment costing K1,160,000 (VAT inclusive). QR Plc does not have ready cash available to acquire the equipment. The company is exploring the following two options of financing the acquisition of the equipment:

Option 1

Enter into an operating lease arrangement with a leasing firm to procure the equipment. This will entail the company paying annual lease rentals of K208,800 (VAT inclusive) per annum starting on 1 January 2023. The lease agreement will be renewable every year.

Option 2

Enter into a hire purchase agreement with a finance company. This will entail the company making an initial deposit of 30% of the purchase cost on 1 January 2023, followed by 12 monthly instalments of K105,000 each, payable at the end of each month starting on 31 January 2023.

Mulauzi Konzo

Mulauzi Konzo has been in employment as an accountant for many years. He is now nearing retirement age. He is expecting to be paid retirement benefits soon after his retirement in December 2023.

Mulauzi is considering investing his retirement benefits in deposit based investments. Due to his advanced age, he is concerned about his health and he is also considering investing some of his retirement benefits in financial services protection products such as Critical Illness insurance and Term Assurance.

Required:

(a) Advise the directors of QR Plc, using appropriate supporting computations, of the following:

(i) The taxation implications of leasing the equipment under an operating lease. (5 marks)

(ii) The taxation implications of acquiring the equipment through a hire purchase contract. (6 marks)

(b) Advise Mulauzi of the taxation implications associated with the following investments:

(i) Certificates of deposits (CDs) (2 marks)

(ii) Government of Zambia Bonds. (2 marks)

(c) Describe the nature of each of the following financial protection products and advise him of the taxation implications arising in each case:

(i) Term Assurance (2 marks)

(ii) Critical illness insurance (3 marks)

[Total: 20 Marks]

QUESTION FIVE

The following extract of the profit or loss has been obtained from the accounts of MFC Mining Corporation, a company engaged in the extraction and sale of copper in Zambia. MFC Ltd is a subsidiary of a foreign-based multinational mining company. The group prepares financial statements in United States dollars.

MFC MINING CORPORATION

STATEMENT OF PROFIT OR LOSS FOR THE YEAR ENDED 31 DECEMBER 2023

	Note	K' 000
Gross profit		902,906
Operating expenses	(1)	(221,600)
Corporate Social Responsibility	(2)	(33,000)
Finance cost		(480,000)
Net foreign exchange loss	(3)	(254)
Other income	(4)	29,920
Profit for the year		197,972

The following additional information is available:

Note 1: Operating Expenses

Operating expenses include environmental expenses of K13,500,000, mineral prospecting expenses of K4,500,000, employee benefits of K36,000,000, drilling expenses of K9,750,000, depreciation charges of K72,000,000 and expenditure incurred on drafting and mapping of K2,430,000. The balance represents miscellaneous allowable business expenses.

Note 2: Corporate Social Responsibility

This includes expenditure incurred on the construction of the road network in the mining township amounting to K22,500,000, expenditure on the rehabilitation of a Government health facility in a council town outside the mining township of K9,000,000 and donations to approved public benefit organisations of K1,500,000.

Note 3: Net Foreign Exchange Losses

These include a foreign exchange loss of K124,000 arising on the settlement of a foreign payable, a foreign exchange gain of K228,000 on translation of the fair value of equity investments held in a foreign country at the year end and a foreign exchange loss of K358,000 on translating a ten-year loan obtained from a foreign financial institution.

Note 4: Other Income

This comprises rental income from letting out property on a commercial basis.

Note 5: Mineral Royalty

The mineral royalty paid by the company during the tax year 2023, has not been accounted for in the statement of profit or loss shown above. The company made the following sales of copper in the tax year 2023:

Mineral	*Quantity*	*Average LME cash price for the year*
Copper	4,000 tonnes	US$8,500

The relevant average Zambian Kwacha per US dollar rate approved by the Commissioner General was K18.90/US$1, throughout the year.

Note 6: Implements, Plant and Machinery

At 1 January 2023, the company held the following capital assets which were imported from foreign suppliers and paid for in US dollars a year ago: The original costs of the assets translated in Zambian kwacha on the date of acquisition were as follows:

Asset	Cost
Drilling equipment	K4,500,000
Mineral processing equipment	K3,500,000

During the year the company constructed a new copper processing plant at a cost K52,500,000. This expenditure was incurred and paid for in Zambian Kwacha.

Note 7: Unrelieved Mining Loss

The company had an unrelieved tax adjusted mining loss of K24,000,000 at 1 January 2023, which was the balance of the loss suffered by the company two years ago.

Note 8: 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 2022	K18.00
Y/e 31 December 2023	K18.90

Required:

Compute the company income tax payable by MCF Mining Corporation for the tax year 2023.

[Total: 20 Marks]

END OF PAPER

CA 3.4 ADVANCED TAXATION SUGGESTED SOLUTIONS

SOLUTION ONE

(a) (i)REPORT TO THE DIRECTORS OF COW PLC

REPORT

TO: THE DIRECTORS OF COW PLC
FROM: THE TAX MANAGER
DATE: 28^{TH} DECEMBER 2023

SUBJECT: REPORT ON THE TAXATION IMPLICATIONS ARISING FROM CESSATION OF TRADE

1.0 Introduction

This report explains the taxation implications arising from the plans to discontinue the operations of IMPALA Plc through sale of individual assets and the company income tax payable.

2.0 VAT Implications

VAT will be charged on all assets held by the business as at 31 December 2023 meeting the definition of taxable supplies for VAT purposes. This is because it is the individual assets which will be sold, and not the business as whole.

VAT will therefore arise on the sale of the factory buildings, administration buildings. Plant & machinery, motor vehicles and inventories as all these are taxable supplies for VAT purposes.

The amount of VAT arising will be K870,400 as shown in Appendix 1.

3.0 Property Transfer Tax Implications

Property transfer tax (PTT) will additionally arise on the sale of items meeting the definition of chargeable property under the PTT Act. This is because it is the individual assets which will be sold, and not the business as whole.

Specifically, PTT will only arise on the sale of the factory and administration buildings. No PTT will arise on the sale of plant and machinery as these are not chargeable property under the PTT Act.

The amount of PTT arising will be K210,000 as shown in Appendix 2.

4.0 Income Tax Implications

When a member of a group of companies ceases to trade or sold, that company exits the group. IMPALA Plc will cease to trade on 31 December 2023 and therefore, cessation rules will be used to determine the basis of assessment for the profits made for the year ended 31 December 2023.

The last financial statements will be prepared for exactly twelve (12) months; therefore, the normal rules will apply. The basis of assessment will be the current year basis since the financial statements will be prepared to a date falling between 1 April and 31 December inclusive.

There will be no capital allowances to be claimed for the tax year 2023 as the assets will be disposed of. However, the sale proceeds will be compared with the income tax value to determine whether there will be a balancing charge or balancing allowance.

The amount of company income tax arising will be K147,000 as shown in Appendix 3.

4.0 Conclusion

On cessation of operations of IMPALA plc, VAT amounting to K870,400 (Appendix 1) will arise and PTT amounting to K210,000 (Appendix 2) will arise. This is because you will be selling the individual assets of the company as opposed to selling the business as a whole.

Additionally, company income tax of K147,000 will arise in spite of the company suffering a tax loss before capital allowances of K1,200,000. This is because on the disposal of the assets held by the company, a balancing charge of K1,690,000 will arise which will convert the loss into a final taxable profit after capital allowances of K490,000.

Signed: L Mulubwa

APPENDICES

Appendix 1: VAT ARISING

	K
Factory building (K2,600,000 x 16%)	416,000
Administration building (K1,600,000 x 16%)	256,000
Plant & machinery (K240,000 x 16%)	38,400
Motor vehicles (K700,000 x 16%)	112,000
Inventories (K300,000 x 16%)	48,000
Total VAT	870,400

Appendix 2 PTT ARISING

	K
Factory building (K2,600,000 x 5%)	130,000
Administration buildings (K1,600,000 x 5%)	80,000
Total PTT	210,000

Appendix 3: COMPANY INCOME TAX ARISING

	K	K
Loss before tax		(1,200,000)
Less:		
Capital allowances		
Factory building (K600,000 – K1,500,000)	(900,000)	
Administration building		
(K800,000 – K1,000,000)	(200,000)	
Plant & machinery (K0 – K240,000)	(240,000)	
Motor vehicles (K350,000 – K700,000)	(350,000)	
Net balancing charge		1,690,000
Taxable profit		490,000
Income tax (K490,000 x 30%)		147,000

(b) Taxation implications

(i) Importation of raw materials from BETA Plc

When a Zambian resident company imports goods from a member of the same group resident in a foreign country, the purchase price paid should be an arm's length price (market price).

Where the actual price paid by the Zambian entity, to the foreign entity, is higher than the open market value, the amount in excess of the open market value is treated as a transfer pricing adjustment and should be added back to the taxable business profit.

Pemba Plc paid for the raw materials at a price of K2,080,080 which was higher than the open market value of K1,662,120. The amount to be disallowed in the computation of business profit is; K2,080,080 – K1,662,120 = K417,960.

(ii) Provision of management consultancy

When a Zambian resident company acquires services from a company from the same group resident in a foreign country, the price paid for those services should be an arm's length price. Pemba Plc paid the price equal to the arm's length price, therefore, there would be no adjustment to be made in the computation of taxable business profit.

However, Pemba Plc will be deemed to have imported services because the management consultancy services were provided by a non-resident supplier who has not appointed a tax paying agent in Zambia.

This means that Pemba Plc will be required to pay reverse charge (VAT) on the value of imported services since BETA Plc has not appointed a tax agent in Zambia. The reverse VAT is charged at 16%. The reverse VAT payable on the importation of management consultancy services will be: K5,200,100 x 16% = K832,016.

The reverse VAT of K832,016 should be accounted for and be paid not later than 18th January 2024. The reverse VAT is not recoverable as input VAT if the non-resident supplier has not appointed a tax agent. This means that Pemba Plc will not be able to claim the reverse VAT as input VAT.

Pemba Plc is required to deduct withholding tax at a rate of 20% which is the final tax. The amount of withholding tax is; K5,200,100 x 20% = K1,040,020. This tax should be remitted to ZRA not later than the 14th January 2024.

(iii) Borrowing from BETA Plc

When a Zambian resident company obtains a loan from a member of the same group resident in a foreign country, the interest rate charged on that loan should be the market interest rate (arm's length interest rate).

Where the actual interest rate on the loan is higher than the arm's length interest rate, the finance costs in the statement of profit or loss will be more than it should be if the loan was obtained from any other lending institution. Hence, the profit is understated.

This means that the difference between the actual interest expense charged in the statement of profit or loss and the interest calculated at an arm's length interest rate should be added back to the taxable business profit as a transfer pricing adjustment.

The amount of interest expense to be disallowed as transfer pricing adjustment for the year ended 31 December 2023 is; K68,200,000 x (27.80% - 20.20%) x 9/12 = K3,887,400.

(c) COMPUTATION OF COMPANY INCOME TAX PAYABLE

	K	K
Profit before tax		17,971,500
Add:		
Depreciation	600,200	
Amortization	410,200	
Transfer pricing adjustments on:		
- Importation of raw materials (K2,080,080 – KK1,662,120)	417,960	
- Interest expense	3,887,400	
		5,315,760
		23,287,260
Less:		
Capital allowances		(4,200,000)
		19,087,260
Disallowed interest		15,882,522
Taxable profit		34,969,782
Company Income Tax		
K21,698,062 x 30%		10,490,935
Less:		
Provisional income tax		(6,290,025)
Company Income Tax payable		4,200,910

Workings

Disallowed interest

	K
Taxable business profit	19,087,260
Add:	
Depreciation	600,200
Amortization	410,200
Finance costs (K35,190,000 – K3,887,400)	31,302,600
Tax EBITDA	51,400,260
Finance costs	31,302,600
Allowable interest (K51,400,260 x 30%)	(15,420,078)
Disallowed interest	15,882,522

SOLUTION TWO

(a) A permanent establishment is a fixed place of business through which the business of an enterprise is wholly or partly carried on.

It includes a place of management, a branch, an office, a factory, a workshop, a mine, an oil or gas well, quarry or any other place of extraction of natural resources.

A building site or installation project constitutes a permanent establishment only if it lasts for more than 12 months.

TexCorp (Z) Limited will be classified as a permanent establishment as it has a fixed place through which the business activities of the company will be carried on.

(b) An individual is regarded as a resident in Zambia if that individual is physically present in Zambia for more than one hundred eighty-three (183) days excluding the date of arrival and the date of departure.

An individual is also regarded as a Zambian resident, from the date of arrival, if that individual is expected to be in Zambia for the purpose that will take more than twelve (12) months or if that individual comes with the intentions of establishing permanent residence in Zambia.

Philipino Edwardo was physically present in Zambia for a period of one hundred twenty-eight (128) days during the tax year 2023. However, he will still be regarded as a resident in Zambia as he is expected to be in Zambia for a period exceeding twelve (12) months.

(c) The following is the income tax treatment of the foreign income received by Edwardo:

All income receivable from foreign sources by a Zambian resident person is taxable unless specifically exempt under the provisions of the Income Tax Act, subject to any double taxation relief which may be available under double taxation conventions. Therefore, the tax treatment of income received by Edwardo from foreign sources will be as follow:

(1) Dividends income received from shares held in foreign companies is subjected to Zambian income tax in the year in which it is received. The amount of income to be included in the Zambian income tax computation is the gross amount of the dividends. The dividends received by Edwardo will therefore be chargeable to Zambian income tax, subject to unilateral credit relief since Zambia does not have a double taxation convention with Republic of CapeLand.

(2) Interest income received from foreign sources is subjected to Zambian income tax. The taxable amount is the gross amount of the interest received. In this case, bank deposit interest received by Edwaedo will be chargeable to Zambian income tax and subjected to unilateral credit relief since Zambia does not have a double taxation convention with Republic of CapeLand.

(3) Rental income received from letting out of property that is situated outside Zambian is exempted from Zambian income tax. Therefore, the rent received by Edwardo from properties situated outside Zambian will not be subjected to Zambian income tax.

(d) EDWARDO'S

PERSONAL INCOME TAX COMPUTATION FOR THE TAX YEAR 2023

	K	K
Zambian income		
Salary (K1,110,000 x 4/12)		370,000
General purpose allowance (K11,000 x 4)		44,000
House maintenance expenses		
(K9,100 x 4)		36,400
		450,400
Foreign income		
Dividends (\$5,600 x 100/70 x K18.10)	144,800	
Interest (\$3,200 x 100/80 x K18.10)	72,400	
		217,200
Taxable income		667,600
Income Tax		
First K106,800		12,360
Excess (K667,200 – K106,800) @37.5%		210,300
Income tax liability		222,660
Less:		
Double taxation relief:		
Dividends		(43,440)
Interest		(14,480)
Income tax payable		164,740

Workings

Double taxation relief

Dividends

Foreign tax paid: K144,800 x 30% = K43,440

Zambian equivalent tax

$\frac{\text{Gross foreign income}}{\text{Total assessable income}} \times \text{total Zambian income tax charge}$

$\frac{K144{,}800}{K667{,}600} \times K222{,}660$

= K48,294

The double taxation relief is K43,440 which is the lower

Interest

Foreign tax paid: K72,400 x 20% = K14,480

Zambian equivalent tax

$\frac{K72{,}400}{K667{,}600} \times K222{,}660$

= K24,147

The double taxation relief is K14,480 which is the lower.

SOLUTION THREE

(a) Procedures performed to uncover hidden income

In order to uncover hidden income, the auditor will mainly consider third parties who have dealings with GNC Ltd. Specifically; the auditor can perform the following procedures:

(1) Request GNC Ltd to provide a statement of affairs setting out all of their assets and liabilities on a specified date to help assess the financial position and financial performance of the company.

(2) Request third parties, such as suppliers and customers, to deliver or to make available for inspection any books and records or information and explanations in relation to GNC Ltd that may be relevant to the company's liability to tax.

(3) Request financial institutions to make available details of accounts and financial transactions, of GNC Ltd, which may be material in determining the company's liability.

(4) Comparison of the level of income of GNC Ltd with that generated by similar business of similar size, similar industry or nature for reasonableness.

(1 mark for each valid point up to a maximum of 3 marks)

(b) Procedures performed where insufficient or incomplete records are maintained.
The following approaches may be undertaken by the auditor in such cases:

(1) An estimated assessment would be made based, for example, on the taxpayer's lifestyle or the level of income that similar business of similar size, similar industry or nature generates.

(2) The auditor can reconstruct statements of financial position based based on the existing non-current assets, inventories and some information obtained about money owing to suppliers.

(3) Similarly, the tax auditor can use financial ratios, to derive a statement of profit or loss and statement of cash flows may be derived and other relevant financial records, thereby, uncovering some income which a taxpayer would not have voluntarily disclosed during an interview.

(c) REPORT

From: Tax Consultant
To: The Board of Directors
Date: Today's date
Subject: GNC Ltd's Exposure to penalties and interest

1.0 Introduction

This report outlines your company's exposure to penalties and interest on overdue/underpaid taxes and on late tax submission of tax returns on all payments and tax return submissions made up to and including 30 September 2024.

2.0 Late submission of return of provisional income

This return should have been submitted by 31 March 2023, but was submitted on 15 May and was therefore submitted late by 1 month and 15 days.

The penalty units arising are 2000 penalty units (K600) per month or part thereof being a company

The amount of the penalties is therefore K1,200 (K600 x 2) 4000 penalty units (2000 x 2)

3.0 Late payment of Provisional Income Tax for first quarter

This instalment should have been paid by 10 April 2023, but was paid on 15 May and was therefore paid late by 1 month and 5 days (or 35 days).

The penalty units will amount to K10,875 (5% x K108,750 x 2)

Additionally interest on the overdue tax will arise. The applicable rate will be 11% per annum (9% + 2%)

The amount of interest arising will therefore be K1,147 (11% x K108,750 x 35/365)

Please see the computation of the amount of provisional income tax for the first quarter in the appendix attached herewith.

4.0 Late payment of Provisional Income Tax for third quarter

This instalment should have been paid by 10 October 2023, but was paid on 5 January 2024 and was therefore paid late by 2 months and 26 days (or 87 days late).

The penalty units will amount to K16,313 (5% x K108,750 x 3)

Additionally interest on the overdue tax will arise. The amount of interest arising will therefore be K2,851 (11% x K108,750 x 87/365)

5.0 Underpayment of the final balance of company income tax payable.

The final amount of income tax underpaid as a result of not computing the final company income tax payable correctly is K108,000 [(K1,640,000 – K1,280,000) K360,000 x 30%]

This amount should have been paid by 21 June 2023, but was paid on 30 September 2024 and was therefore paid late by 3 month and 10 days (or 101 days).

The penalty will amount to K21,600 (5% x K108,000 x 4)

Additionally interest on the underpaid tax will arise. The amount of interest arising will therefore be K3,287 (11% x K108,000 x 101/365)

6.0 Conclusion

Penalties and interest will arise as a result of submitting the return of provisional income late. Further penalties and interest will arise for paying the instalments of provisional income tax for the first and fourth quarters late as well as for the under payment of the final company income tax at the end of the year as outline above.

Signed……………………………………

APPENDIX

COMPUTATION PROVISIONAL INCOME TAX PER QUARTER

Estimated Taxable Profit	K1,450,000
Provisional income tax (K1,450,000 x 30%)	K435,000
Amount of provisional income tax paid per quarter K435,000 /4	K108,750

SOLUTION FOUR

(a) (i) OPTION 1

Tax implications of an operating lease:

(1) Input VAT on the lease rentals will also be recoverable.

This amount of the recoverable input VAT will be:

K208,800 x 4/29 = K28,800

(2) The VAT exclusive lease rentals will be an allowable deduction against the profits of QR Plc.

The amount of the lease rentals which will be allowable will be:

K208,800 x 25/29 = K180,000

(3) QR will not be able to claim capital allowances on the cost of the asset as these will be claimed by the owners of the equipment.

(ii) OPTION 2

Tax implication of the hire purchase arrangement

(1) QR Plc will be able to claim input VAT on the cost of the equipment as the equipment will be owned by the company.

The amount of the input VAT recoverable will be:

K1,160,000 x 4/29 = K160,000

(2) The interest element on the cost will be an allowable deduction against the profits of QR Plc subject to the 30% Tax EBITDA, limitation of interest deductions rules.

The amount of the interest will be:

[K1,160,000 x 30% + (K105,000 x 12)] – K1,160,000

= K448,000

(3) QR Plc will claim capital allowances on the cost of the asset (excluding the interest) which will be allowable deductions when computing the taxable business profits of QR Plc. The amount of the capital allowances claimable will be:

K1,160,000 x 4/29 x 20% = K200,000

(b) Taxation implications associated with investments.

(i) Certificates of Deposits (CDs).

(1) Any interest receivable on these investments by individuals is subject to withholding tax at 15% which is a final tax.

(2) No PTT arises on the transfer of the CDs by investors as CDs are not property for PTT purposes.

(ii) Government Bonds

(1) For an individual any interest receivable from these investments is subject to withholding tax at the rate of 15% which is a final tax.

(2) No PTT arises on the transfer of the bonds by investors as bonds are not property for PTT purposes.

(c) Taxation implications of financial protection products.

(i) Term assurance policy.

Term insurance provides protection for the life (s) assured for a given or specified period of time known as the policy term. The policy only pays out the lump sum death benefit where the life/lives assured die within the policy term.

Tax implications

The premiums are not a tax deductible expense and the proceeds are not taxable if arranged individually.

(ii) Critical illness insurance policy.

This provides for a lump sum payment on the diagnosis of one of the seven core life threatening conditions, which are cancer, coronary artery bypass surgery, heart attack, kidney failure, major organ transplant, multiple sclerosis and stroke.

The policy may also cover other serious conditions as well as including permanent or total disability.

Were the employer insures the cost of employees' salaries, the premiums are a tax deductible trading expense but the policy proceeds are taxable as trading receipts.

SOLUTION FIVE

	K'000	K'000
Profit for the year		197,972
Add		
Depreciation	72,000	
Road network	22,500	
Health facility	9,000	
Forex loss on foreign loan	358	
		103,858
		301,830
Less		
Forex gain on equity investments	228	
Rental income	29,920	
Mineral royalty (W1)	41,207	
Capital allowances (W2)	16,680	
		88,035
Taxable profit before interest adjustment		213,795
Disallowed interest		250,261
Taxable mining profit before loss relief		464,056
Loss relief (W)		25,200
Final taxable mining profits		438,856
Company Income Tax		
(K438,856 x 30%)		131,657

(1) COMPUTATION OF MINERAL ROYALTY TAX

	K'000
On first \$3,999	
(\$3,999 x 4,000 tonnes x K18.90) x 4%	12,093
On next \$1,000	
(\$1,000 x 4,000 tonnes x K18.90) x 6.5%	4,914
On next \$2,000	
(\$2,000 x 4,000 tonnes x K18.90) x 8.5%	12,852
On excess	
(\$8,500 - \$6,999=\$1,501 x 4,000 x K18.90) x 10%	11,348
	41,207

(2) COMPUTATION OF CAPITAL ALLOWANCES

	K'000
Road network	
Wear and tear allowances	
(K22.5m x 20%)	4,500
Drilling equipment	
Indexed capital allowance	
(K4.5m x 20%) x [1 + (18.90 –18.00)/18.00]	945
Mineral processing equipment	
Wear & tear allowance	
(K3.5m x 20%) x [1 + (18.90 -18-00)/18.00]	735

processing plant	
Wear & tear allowance	
(K52.5m x 20%)	10,500
	16,680

(2) COMPUTATION OF TAX EBITDA

	K'000
Taxable profit	213,795
Finance cost	480,000
Depreciation	72,000
Tax EBITDA	765,795

COMPUTATION OF DISALLOWED INTEREST

Finance cost	480,000
Less allowable interest	
(30% x K765,795)	(229,739)
Disallowed interest	250,261

(4) LOSS RELIEF FOR THE TAX YEAR 2023

	K'000
Loss Relief for 2023	
[(1+(18.90-18.00)/18 x K24,000,000]	25,200
Loss Relief for 2023	25,200
Unrelieved loss c/f	0
Profit available for loss relief	
(50% x K464,056)	232,028

Therefore, the whole loss will be relieved.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA 3.5: ADVANCED MANAGEMENT ACCOUNTING

TUESDAY 13 JUNE 2023

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

INSTRUCTIONS TO CANDIDATES

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

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

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

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

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

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

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

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

8. Present legible and tidy work.

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

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

SECTION A

This Question is compulsory and must be attempted

QUESTION ONE- (COMPULSORY)

Kabwe Textiles Plc (KT Plc) is a large divisionalised company with a strong presence in the domestic and overseas fabric market. Currently sales are in excess of K1 billion (declining from K3 billion sales) and profit before tax of K0.45 billion (declining from K1.75 billion profit before tax).

KT Plc has a good distribution network of wholesale dealers and retailers across Zambia. The company has also export licences to Europe and Asia.

Currently KT Plc uses financial performance measures such as return on capital employed, residual income, profit margin, standard costing, etc. to measure its performance. The company has so far been doing well. However, sales revenues have been declining over the last three years and the management of KT Plc cannot pin point the reason for the possible decrease in sales revenues. One of the other Directors who recently qualified with a doctorate degree in business studies pointed out that although modern performance models such as the balanced scorecard have been introduced over the last few years, KT Plc has not embraced them to change performance measurement systems. He recommended that non-financial performance metrics to be introduced to provide a holistic view of the company's performance.

Required:

(a) Discuss five (5) advantages of using non-financial performance indicators (NFPI's). (8 marks)

(b) Discuss four (4) possible impacts of using NFPI'S on KT Plc. (6 marks)

(c) Modern performance management systems (e.g. the balanced scorecard) recommend the use of financial and non-financial performance indicators.

Required:

Discuss the **impact** of these indicators **on employees.** (6 marks)

(d) Division X is the fabric dyes division of KT Plc. Divisional managers in KT Plc are required to generate a return on divisional investments in excess of 15% per annum.

Davis Mwili manages Division X and is considering purchasing new dying equipment. There are two types of equipment, A and B, each of which have the same capacity and expected useful life of four years but only differ in terms of net cash flows and initial outlay costs. Davis can buy either of this equipment.

The cash flows and initial out lay costs for equipment A and equipment B are as follows:

K000

Initial outlay	Y_0	Y_1	Y_2	Y_3	Y_4	NPV@15%
A (outlay)/ net pre-tax cash flow	(3,200)	1,200	1,200	1,200	1,200	226
B (outlay)/ net pre-tax cash flow	(2,600)	1,300	1,100	750	500	143

The net cash flows above are assumed to occur at the end of the year and equipment A and B are not expected to have any scrap value at the end of year four.

The Division X manager is expected to achieve a return of not less than 15% per annum. Not achieving the target would mean that he would miss the performance bonus payment and this may reduce his pension when he retires in early year three. For the purposes of calculating divisional returns, divisional assets are valued at net book values at the beginning of the year and depreciation is calculated on a straight line basis.

Required:

(i) Explain why neither the Return On Capital Employed (ROCE) nor the Residual Income (RI) would encourage Division X manager to invest in the equipment which has a higher NPV.

N.B. you need to carry out the necessary calculations in order for you to explain why. (9 marks)

(ii) Explain the extent on how the use of alternative accounting techniques would assist in reconciling the conflict between accounting based performance metrics and discounted cash flow investment appraisal techniques? (4 marks)

(iii) Discuss four (4) approaches that can be used to avoid suboptimal behaviour which is brought about by employing accounting based performance metrics. (4 marks)

(e) A new system (like the installation of equipment A or B) should be reviewed after implementation and, periodically, when in operation.

Required:

Explain when should a post completion audit commence? (3 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt any THREE (3) questions.

QUESTION TWO

Vuuma Petroleum Company (VPC) recently entered the Zambian market after its success in the Southern African region supplying fuel and lubricants for use in motor vehicles. VPC has a divisionalised structure (Fuel division and Lubricants division). The overall objective of the company is 'to deliver sustainable growth in value to the shareholders'. VPC has grown significantly by acquisition of already existing companies. Its policy is to maintain the public outlook of the acquired company for a period of eight months before it finally changes all aspects of the acquisition. VPC has always maintained blue and red as its corporate colours. It has also maintained the culture of the founding members of the company.

In order to have a competitive advantage, VPC employs experts and gives specialised training to its employees.

Tibo Mwaona, chief executive officer (CEO), has recognised that the company has been so focused on making acquisitions such that it has not improved other aspects of performance management.
One criticism of performance management at VPC was that it lacked an over-arching measure of performance. The company has been using return on capital employed (ROCE) as a major performance measure. However, the board is considering the introduction of economic value added (EVA) as a meaningful measure. Once implemented the EVA would also help to determine bonus payments to the experts in the company. The following information has been provided:

Financial data for VPC for the year ended 31 December 2022

	K'm
Operating profit	58.6
Interest	(10)
Profit before tax	48.6
Tax at 35%	(17.0)
Profit after tax	31.6

	1 January 2022	1 January 2023
Capital employed (Km)	221.50	229.50

Notes:

1. K5.4 million and K7.0 million was spent on marketing in each of the years 2022 and 2021 respectively. This was to build the long-term brand of VPC.
2. VPC incurred non-cash expenses of K5.6 million in 2022.
3. The company's weighted average cost of capital is 16%.

VPC has maintained its budgeting setting process for more than a decade. Its Managers prepare draft budgets and submit them to the VPC board for approval. The company also uses budgets to evaluate the Managers' performance. Budgets are created from the previous year's results and an inflation rate applied in anticipation of growth. At the recent past board meeting it was suggested that the company changes from the current budgeting system to activity based budgeting.

Required:

(a) Calculate the Economic Value Added for VPC for the year ended 31 December, 2022. Make any necessary assumptions where necessary in the computations of the EVA. (4 marks)

(b) Evaluate the appropriateness of using the EVA in VPC. (6 marks)

(c) Evaluate whether VPC should change from the current budgeting system to activity based budgeting (ABB). (10 marks)

[Total: 20 Marks]

QUESTION THREE

Zee Limited (Z Ltd) is a Zambian company incorporated in 2000 as a private company limited by shares. The company is owned by three brothers who are also directors. Every three (3) years they rotate with one brother taking the role of Managing Director, another role of Board Chairperson and another the role of Deputy Managing Director. The company has a total of 65 members staff including directors and managers. Each department is headed by a manager and the company is structured into Accounts, Sales, Business, Administration and IT departments. Z Ltd has experienced steady growth in revenue and profitability arising from the increased demand of warehousing and storage space by many companies. Also, the logistics support services required for several export and trading companies following the reopening of the boarders for trade has resulted in increased business for Z Ltd. The company has 16 industrial warehouses with the smallest being 30,000m^2 and largest 65,000m^2. Z Ltd has a total of 21 trucks that move cargo in and out of Zambia to the ports.

Since incorporation, Z Ltd has not undertaken any formal strategic planning as the owners view this as a waste of time and money. At the recent management meeting, the manager in charge of the business department submitted the need to undertake strategic planning. "Why spend huge sums of money to engage a consultant to devise a plan knowing that the future is unpredictable. Nobody, knew Covid-19 would lead to business closures and disruptions in the supply chains but here we are - business is booming and money is coming in the company again" said the Board Chairperson.

The Manager in charge of administration is in support of the need to undertake some form of planning and pointed out the need to align the company structure, mission, goals and objectives in some form of performance hierarchy. This should improve the management of performance in the company. In responding to this the Managing Director said "Our business is to lease out storage space including securing customer items in our warehouses and also to transport cargo in and out of Zambia to other countries and ports in the region. We know that and we have been doing it for over 20 years. Our customers pay months in advance for the space and some have even paid for years in advance without even requesting for discounts."

The Manager in charge of accounts raised concerns on the Directors' continued instructions to the accountant to pay for their children's schools directly from the company accounts including sending pocket money to the children. On one occasion the accountant delayed in paying the school fees due for the Board Chairperson's daughters following changes in the school banking details. The Board Chairperson was very upset with the accountant and lamented that 'am not interested in your explanations for your poor performance of failure to make timely payments, do your job as instructed.' The Manager emphasized the need to have a clear performance system for staff and the company. Furthermore, directors should be on one approval panel because we spend a lot of time reconciling payments made without us capturing them in the system. It is only after we receive the bank statements after 30 days that we get to know about such payments. The chairperson responded, "we are the owners of the company and therefore we should be getting drawings of some kind. Moreover, we do not receive a regular salary like other management staff. The banking system is online surely you do not need to wait for 30 days to get transactions. Therefore, such excuses are not valid."

Required:

(a) Explain the ethical issues faced by Z Ltd in the management of performance. (6 marks)

(b) Discuss how the Managers' recommendations would improve the management of performance in Z Ltd. (8 marks)

(c) Recommend two (2) non-qualitative performance indicators including a control for each indicator to monitor company performance. (6 marks)

[Total: 20 Marks]

QUESTION FOUR

Auto Parts Ltd (AP Ltd) makes spare parts for sale to the general public and companies. Several other spare part manufacturers operate within the spare part industry and this industry is highly competitive.

AP Ltd has a number of manufacturing factories and a number of distribution outlets in Zambia. Information for AP Ltd's Executive Information System (EIS) is obtained from both internal sources such as production factories and also external sources such as the wider public and customers. The information generated internally is sent to the company's headquarters over a wide area network (WAN).

The increasing amount of data and information which AP Ltd has to manage means that it is important that data is organised efficiently and can be accessed easily. One system that AP Ltd is considering installing is the Materials Requirements Planning1 (MRP1). The MRP1 project will need a lot of sensitization and effective communication to the workers to avoid resentments and sabotage. In particular, a change agent may have to be appointed internally or externally.

Required:

(a) Explain the main features of the Materials Requirements Planning 1 (MRP1) and justify why it would be suitable or not suitable for a hotel. (N.B. MRP1 is very suitable for AP Ltd) (5 marks)

(b) Identify the most important factor in determining the successful operation of MRP1 system and explain the management information needed on this factor to remain relevant. (3 marks)

(c) Explain and suggest the reasons why EIS of AP Ltd could be becoming expensive to operate? (7 marks)

(d) AP Ltd has proposed the installation of MRP1 to improve the inventory information system.

Required:

Evaluate the role of a change agent in the implementation of this MRP1 system. (5 marks)

[Total: 20 Marks]

QUESTION FIVE

Evergreen World Limited (EW Ltd) is company that produces organic foods. Its products are well branded and popular with the market. EW Ltd has expanded its activities to solar products. The market for solar products is highly competitive because of government's encouragement to shift from hydro generated electricity. EW Ltd aims to achieve a 50% market share from the current 20% in the next three (3) years. However, performance reporting has been of concern to the board of EW Ltd. The board chairman specifically mentioned of streamlining the dashboard so as to be meaningful. A task committee was formed to look at the matters raised with its initial task being to evaluate the current reporting system.

The company has received several complaints on the faulty batteries for the solar panels. Recently during a media discussion, call in participants raised the issue of short life span of the batteries and in the extreme cases non-functional. The discussion was general and therefore did not specifically mention EW Ltd products. The Chief Executive Officer, Barbara Siame, is worried about these complaints. She believes that it is such issues which may be attributed to the poor performance being experienced. The board chairman is convinced that this could be further investigated by applying non-financial performance measures.

A particular caller complained that most solar products are exaggerated in the adverts and therefore implored the consumer competition agency to check this anomaly. During the last board meeting, it was agreed that EW Ltd needed to review the scope of its ethics so as to maintain a competitive advantage. The ethical culture was said to be the norm of any successful business.

Required:

(a) Discuss the problems with actions to control performance management. (6 marks)

(b) Evaluate the use of non-financial performance measures in a company such as EW Ltd. (8 marks)

(c) Explain the scope of corporate ethics for a company such as EW Ltd. (6 marks)

[Total: 20 Marks]

END OF PAPER

Modified Internal Rate of Return

$$MIRR = \left[\frac{PV_R}{PV_I}\right]^{\frac{1}{n}}\left(1 + r_e\right) - 1$$

The Black-Scholes option pricing model

$$c = P_a N(d_1) - P_e N(d_2) e^{-rt}$$

Where:

$$d_1 = \frac{\ln(P_a / P_e) + (r + 0.5s^2)t}{s\sqrt{t}}$$

$$d_2 = d_1 - s\sqrt{t}$$

The Put Call Parity relationship

$$p = c - P_a + P_e e^{-rt}$$

Present Value Table

Present value of 1 i.e. $(1 + r)^{-n}$

Where r = discount rate
n = number of periods until payment

Discount rate (r)

Periods (n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0·990	0·980	0·971	0·962	0·952	0·943	0·935	0·926	0·917	0·909	1
2	0·980	0·961	0·943	0·925	0·907	0·890	0·873	0·857	0·842	0·826	2
3	0·971	0·942	0·915	0·889	0·864	0·840	0·816	0·794	0·772	0·751	3
4	0·961	0·924	0·888	0·855	0·823	0·792	0·763	0·735	0·708	0·683	4
5	0·951	0·906	0·863	0·822	0·784	0·747	0·713	0·681	0·650	0·621	5
6	0·942	0·888	0·837	0·790	0·746	0·705	0·666	0·630	0·596	0·564	6
7	0·933	0·871	0·813	0·760	0·711	0·665	0·623	0·583	0·547	0·513	7
8	0·923	0·853	0·789	0·731	0·677	0·627	0·582	0·540	0·502	0·467	8
9	0·941	0·837	0·766	0·703	0·645	0·592	0·544	0·500	0·460	0·424	9
10	0·905	0·820	0·744	0·676	0·614	0·558	0·508	0·463	0·422	0·386	10
11	0·896	0·804	0·722	0·650	0·585	0·527	0·475	0·429	0·388	0·305	11
12	0·887	0·788	0·701	0·625	0·557	0·497	0·444	0·397	0·356	0·319	12
13	0·879	0·773	0·681	0·601	0·530	0·469	0·415	0·368	0·326	0·290	13
14	0·870	0·758	0·661	0·577	0·505	0·442	0·388	0·340	0·299	0·263	14
15	0·861	0·743	0·642	0·555	0·481	0·417	0·362	0·315	0·275	0·239	15

(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0·901	0·893	0·885	0·877	0·870	0·862	0·855	0·847	0·840	0·833	1
2	0·812	0·797	0·783	0·769	0·756	0·743	0·731	0·718	0·706	0·694	2
3	0·731	0·712	0·693	0·675	0·658	0·641	0·624	0·609	0·593	0·579	3
4	0·659	0·636	0·613	0·592	0·572	0·552	0·534	0·516	0·499	0·482	4
5	0·593	0·567	0·543	0·519	0·497	0·476	0·456	0·437	0·419	0·402	5
6	0·535	0·507	0·480	0·456	0·432	0·410	0·390	0·370	0·352	0·335	6
7	0·482	0·452	0·425	0·400	0·376	0·354	0·333	0·314	0·296	0·279	7
8	0·434	0·404	0·376	0·351	0·327	0·305	0·285	0·266	0·249	0·233	8
9	0·391	0·361	0·333	0·308	0·284	0·263	0·243	0·225	0·209	0·194	9
10	0·352	0·322	0·295	0·270	0·247	0·227	0·208	0·191	0·176	0·162	10
11	0·317	0·287	0·261	0·237	0·215	0·195	0·178	0·162	0·148	0·135	11
12	0·286	0·257	0·231	0·208	0·187	0·168	0·152	0·137	0·124	0·112	12
13	0·258	0·229	0·204	0·182	0·163	0·145	0·130	0·116	0·104	0·093	13
14	0·232	0·205	0·181	0·160	0·141	0·125	0·111	0·099	0·088	0·078	14
15	0·209	0·183	0·160	0·140	0·123	0·108	0·095	0·084	0·074	0·065	15

Annuity Table

Present value of an annuity of 1 i.e. $\frac{1 - (1 + r)^{-n}}{r}$

Where r = discount rate
n = number of periods

Discount rate (r)

Periods (n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0·990	0·980	0·971	0·962	0·952	0·943	0·935	0·926	0·917	0·909	1
2	1·970	1·942	1·913	1·886	1·859	1·833	1·808	1·783	1·759	1·736	2
3	2·941	2·884	2·829	2·775	2·723	2·673	2·624	2·577	2·531	2·487	3
4	3·902	3·808	3·717	3·630	3·546	3·465	3·387	3·312	3·240	3·170	4
5	4·853	4·713	4·580	4·452	4·329	4·212	4·100	3·993	3·890	3·791	5
6	5·795	5·601	5·417	5·242	5·076	4·917	4·767	4·623	4·486	4·355	6
7	6·728	6·472	6·230	6·002	5·786	5·582	5·389	5·206	5·033	4·868	7
8	7·652	7·325	7·020	6·733	6·463	6·210	5·971	5·747	5·535	5·335	8
9	8·566	8·162	7·786	7·435	7·108	6·802	6·515	6·247	5·995	5·759	9
10	9·471	8·983	8·530	8·111	7·722	7·360	7·024	6·710	6·418	6·145	10
11	10·37	9·787	9·253	8·760	8·306	7·887	7·499	7·139	6·805	6·495	11
12	11·26	10·58	9·954	9·385	8·863	8·384	7·943	7·536	7·161	6·814	12
13	12·13	11·35	10·63	9·986	9·394	8·853	8·358	7·904	7·487	7·103	13
14	13·00	12·11	11·30	10·56	9·899	9·295	8·745	8·244	7·786	7·367	14
15	13·87	12·85	11·94	11·12	10·38	9·712	9·108	8·559	8·061	7·606	15

(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0·901	0·893	0·885	0·877	0·870	0·862	0·855	0·847	0·840	0·833	1
2	1·713	1·690	1·668	1·647	1·626	1·605	1·585	1·566	1·547	1·528	2
3	2·444	2·402	2·361	2·322	2·283	2·246	2·210	2·174	2·140	2·106	3
4	3·102	3·037	2·974	2·914	2·855	2·798	2·743	2·690	2·639	2·589	4
5	3·696	3·605	3·517	3·433	3·352	3·274	3·199	3·127	3·058	2·991	5
6	4·231	4·111	3·998	3·889	3·784	3·685	3·589	3·498	3·410	3·326	6
7	4·712	4·564	4·423	4·288	4·160	4·039	3·922	3·812	3·706	3·605	7
8	5·146	4·968	4·799	4·639	4·487	4·344	4·207	4·078	3·954	3·837	8
9	5·537	5·328	5·132	4·946	4·772	4·607	4·451	4·303	4·163	4·031	9
10	5·889	5·650	5·426	5·216	5·019	4·833	4·659	4·494	4·339	4·192	10
11	6·207	5·938	5·687	5·453	5·234	5·029	4·836	4·656	4·486	4·327	11
12	6·492	6·194	5·918	5·660	5·421	5·197	4·988	4·793	4·611	4·439	12
13	6·750	6·424	6·122	5·842	5·583	5·342	5·118	4·910	4·715	4·533	13
14	6·982	6·628	6·302	6·002	5·724	5·468	5·229	5·008	4·802	4·611	14
15	7·191	6·811	6·462	6·142	5·847	5·575	5·324	5·092	4·876	4·675	15

CA3.5: ADVANCED MANAGEMENT ACCOUNTING SUGGESTED SOLUTIONS

SOLUTION ONE

(a)

Advantages of non-financial indicators

Measuring performance in monetary terms will motivate the managers of KT Plc to focus excessively on cost reduction and ignore other important measures. What's more, every corporate activity of KT Plc cannot be expressed in terms of money. There are certain aspects such as quality, delivery, reliability, after sales service and customer satisfaction which become essential for the performance measurement of KT Plc. KT Plc needs both financial performance indicators and non-financial performance indicators as they are equally important for the company.

Non-financial performance indicators play an important role in evaluating the performance of KT Plc. Non-financial performance indicators include both quantitative and qualitative measures. The implication of growing emphasis on non-financial performance indicators for KT Plc can be explained through a discussion of their advantages.

1. Focus on long-term organisational strategies

KT Plc should focus on long term organizational strategies. It should focus mainly on performance indicators such as customer satisfaction, quality of service and after sales service to create brand value. These may be costly in the short term but will ensure success in the long term.

2. Finer / more detailed analysis

KT Plc sales are currently around K1 billion. However, profit alone will not give a clear picture of performance of the organization. The increase in profit may be due to an increase in value of currency. Valuable information such as the number of units sold and the increase in customer retention rate will facilitate the increase in profit during the year. Therefore the qualitative information will complement the quantitative information and allow more detailed information.

3. Improve competitiveness

Non-financial performance indicators will help KT Plc to identify the company's weak areas and improve them so that the company can survive and perform better in the competitive world. If a competitor introduces a new fabric material into the market, the company will have to respond through improving the existing material. In this way, the company may perform well in the market and become the market leader.

4. Consider all aspects of organizational strategy

Other aspects regarding the quality of the product or service which cannot be expressed in the monetary terms should be considered by the company. The product quality is what attracts customers to the product so it should be considered.

5. **Better indications of future performance**

Non-financial performance indicators of the company will give an idea of the future performance of the company. If KT Plc is able to satisfy its customers with the services provided, the customers may become loyal to the company and the company may get more business from the existing customers.

6. **Focus of managers shifted from short-term financial performance indicators to qualitative aspects**

If the company gives importance to financial measures, it will give importance to short-term profitability as opposed to long-term profitability. However, if the company also gives importance to non-financial measures alongside the financial measures, it will consider qualitative measures such as quality of service in addition to profitability.

Therefore, in measuring the performance of the company, both financial indicators and non-financial indicators play equal roles.

(b) **The impact of using non-financial performance indicators in KT Plc**

1. **The focus is shifted from short-strategic objectives to long-term strategic objectives**

When only financial performance indicators are used, the company focuses on cost reduction. However, after adopting NFPI's, the company will consider issues such as customer reliability, customer satisfaction and quality of product and will focus on the long-term performance for the company.

2. **Focus of managers shifted from financial measures to qualitative measures**
   The managers of the company will focus on qualitative measures such as employee satisfaction, behaviour of employees and employee satisfaction.

3. **More detailed / finer analysis of financial performance can be made**

Qualitative information allows a more detailed analysis for the performance of an organization. Qualitative data complement the quantitative data and therefore allows better analysis.

4. **The competitiveness of the organization increases**

The competitiveness of the organisation will be increased. If the performance of the organisation is measured on the basis of non-financial performance indicators, it is probable that the organization will pay attention to the non-financial indicators such as the quality of product / service and customer satisfaction which will result in it becoming more competitive in the market.

(c) **Impact on employees**

Employees are one of the biggest assets of the company. The performance and the behaviour of the employees determine the success of the company. The company's major costs are the labour costs. Employees play an important role in building the image of the company in the market.

For example, an employee may perform well in terms of efficiency; however, he may not interact well with other employees or customers which may affect the organization culture and customer satisfaction.

The qualitative aspects relating to employees and their measures are as follows:

1. The **Skill** of the employees. This will determine the service provided by them and their speed of work. If they are capable of doing the work assigned, the wastage is reduced and the company will grow.
2. The **morale** or the honesty of the employees: this will make customers happy and encourage them to purchase from the organization.
3. The **attitude** of employees towards their customers: employees should be very approachable in order to attract customers.
4. The **behaviour** of employees: if employees are polite to their customers, fewer customer complaints will be received and the company will also gain good advice and suggestions from its customers.

(d) (i)ROCE & RI

Equipment A (K'000)

Year	1	2	3	4
Net cash flow	1,200	1,200	1,200	1,200
Less : dep'n[3,200/4]	(800)	(800)	(800)	(800)
Profit	400	400	400	400
Less: notional interest (15%XWDV(X3,200/2,400/1,600/800)	(480)	(360)	(240)	(120)
RI =	**(80)**	**40**	**160**	**280**
WDV b/f (WBV-Dep'n)	3,200	2,400	1,600	800
ROCE=Profit/WDV	**12.5%**	**16.7%**	**25%**	**50%**

Equipment B (K' 000)

Year:	1	2	3	4
Net cash flow	1,300	1,100	750	500
Less: Dep'n	(650)	(650)	(650)	(650)
Net profit	650	450	100	(150)
Less: notional interest (WDVX15%)	(390)	(292.5)	(195)	(97.5)
RI	**260**	**157.5**	**(95)**	**(247.5)**
WDV b/f (opening WDV-Dep'n)	2,600	1,950	1,300	650
ROCE=(net profit/WDV)X100%	**25%**	**23.1%**	**7.7%**	**(23.1%)**

Comment/advice

Over the whole life of the project both ROI and RI favour the equipment A. The average ROI and RI figures are 25% (400/1,600) and K100,000 (K400,000/4) for the equipment A and 20%(262.5/1,300) and K18,750 (K75,000/4) for the Equipment B.

The ROI calculations are based on expressing the average profits as a percentage of the average investment (defined as one half of the initial capital investment).

Division X Manager will favour Equipment B because it yields a higher ROI and RI over the first two years. Division X Manager will probably focus on a two-year time horizon because of his personal circumstances, since choosing the Equipment A is likely to result in him losing his bonus. Therefore, Mr Davis Mwili will choose the plant with a lower NPV. Thus, there will be lack of goal congruence.

(ii) **Extent to Which Use of Alternative Accounting Techniques Can Assist in Reconciling Conflicts between Accounting Based Performance Metrics and discounted Cashflow Investment Appraisal Techniques.**

Suggestions as to how alternative accounting techniques can assist in reconciling the conflict between accounting performance measures and DCF techniques.

1. Avoiding short term evaluations and evaluating performance at the end of the projects life. Thus bonuses will be awarded with hindsight
2. Use alternative asset valuations other than historic cost (e.g. replacement cost);
3. Chose alternative depreciation methods that are most consistent with NPV calculations (e.g. annuity depreciation);

4. Incorporate a range of variables (both financial and non-financial when evaluating managerial performance) that give a better indication of the future results that can be expected from current actions.

(iii) **Approaches that can be used to Avoid Suboptimal Behaviour Brought about by**

Employing Accounting Based Performance Metrics.

Steps that can be taken to avoid dysfunctional behaviour include:

1. Not placing too much emphasis on short-term performance measures and placing greater emphasis on the long term by adopting a profit-conscious style of evaluation.
2. Focusing on controllable residual income or economic value added combined with asset valuations that are derived from depreciation models that are consistent with NPV calculations.
3. Performance evaluation might be based on a comparison of budgeted and actual cash flows. The budgeted cash flows should be based on cash flows that are used to appraise capital investments.
4. Supplementing financial performance measures with non-financial measures when evaluating performance.

(e) **Post Project Completion Audit**

A post project completion audit establishes whether the objectives and target performance criteria for new performance management system have been met, and if not, why not, and what should be done about it. The findings of this audit should be formalised in a report.

A post completion audit should not be made too soon after the system goes live or else results will be abnormally affected by initial problems, lack of user familiarity and resistance to change. A suitable period is likely to be between one month and one year after completion of the project.

SOLUTION TWO

(a) Economic Added Value computation

	K'm
NOPAT(W1)	49.1
Less: adjusted capital employed (K228.5m x 16%)	(36.60)
EVA	12.50

Workings:

W1. Net operating profit after tax (NOPAT)

	K'm
Operating profit	58.6
Add back: non-cash expenses	5.6
Marketing expenses capitalised (no amortisation given)	5.4
Deduct: Tax paid (assume the figure given is tax paid not charged)	(17)
Lost tax relief on interest (K10m x 35%)	(3.5)
NOPAT	49.1

W2. Adjusted value of capital employed

	Km
Opening value at 1 January 2022	221.5
Marketing spend capitalised prior year	7.0
Adjusted value of capital employed	228.50

(b) Evaluation of economic added value computation

- EVA directly linked to shareholder wealth. This in line with the overall objective of VPC of 'to deliver sustainable growth in value to the shareholders'. However numerous adjustments are required.
- EVA is closer to cash flow so it avoids distortion to accounting profit by accounting policies chosen, although its complexity may be poorly understood by managers who, as a result, may be less likely to achieve targets for it.
- EVA uses economic depreciation and the replacement cost of non-current assets should make it less attractive for divisional managers to delay replacing old assets. The economic depreciation, however, is not easy to measure.
- EVA makes divisional managers aware of the cost of finance. However, the WACC calculation is for the company as whole (not the division), involves many assumptions and it may change over time.

(c) Advantages of the current budgeting system

VPC prepares its budget on the basis of the previous year results as a starting point and adding an inflation rate for anticipated growth. This is an example of incremental budgeting.
An advantage of incremental budgeting is that it is quick and easy to prepare. The budgeting system at VPC has remained unchanged for a long time and it is unlikely managers will have experience in any other method of budget setting. While VPC is growing steadily, the use of incremental budgeting may have been appropriate. However, incremental budgeting is unlikely to be appropriate because of the different geographical locations its operates from.

Disadvantages of current budgeting system

- The use of incremental budgets can encourage slack. This includes incorporating extra costs into the budget to make it more achievable, or spending up to the budgeted amount to ensure that a larger budget is set next year. This may be particularly so at VPC, as managers are appraised based on achieving their budget.
- Incremental budgeting does not encourage VPC to look for new and innovative ways of doing things. The company has maintained its founding culture.
- Incremental budgeting is only appropriate where costs are already well controlled and operations are efficient. Otherwise, poorly controlled costs and inefficiencies are just incorporated into the next period's budget.

Advantages of activity-based budgeting (ABB)

- The principle of ABB is that it is activities, such as the goods inwards and goods outwards which drive costs. By understanding what drives the cost, such as the number of despatches to fuel stations, VPC can take action to control the drivers of the costs and eliminate activities which are not value adding.
- ABB is particularly useful where overhead costs form a large part of total costs.
- ABB can help identify critical success factors in which VPC must do well.
- ABB may be more suitable as the business becomes more decentralised.

Disadvantages of activity-based budgeting (ABB)

- One of the main disadvantages of ABB is the time and resources which are needed to implement it, for example, by identifying activities and their costs drivers. In the short term, overheads may not be controllable which will reduce the benefits of implementing ABB.
- Significant investment will be required to collect and process large volumes of data on cost drivers and activities which would be required to implement ABB.
- There may also be resistance to the change from staff, who may also require extensive training, as they will be unfamiliar with the ABB approach.

SOLUTION THREE

(a)
Many others organisations have established and adhere to some kind of ethical code that guide's behaviour in the company. Entity culture Managers tend to share the norms of the group they are in, so what may be described as unethical behaviour overall may be 'ethical' for the group. A group may decide that copying work–related software at home is 'ethical' and therefore all members of the group participate in this behaviour. In the case Zee, the following ethical issues among others have been identified;

There seems to be a lack of mutual respect between management and directors, for example a statement such as "..We know our business and we have been doing it for over 20 years.." could be viewed as one that does not want to get alternative views of the business. Therefore, there is need to enhance for improved good communication and performance management

Transparency in dealings should be improved for timely and accurate reporting particularly for those in authority. Junior managers tend to follow instructions from senior managers where senior managers make unethical decisions these are likely to be followed by juniors. Therefore, senior management may also provoke a climate where unethical decision making is perpetrated. The directors', dealings including approving payments without the managers being aware at the time may create a sense of distrust.

The clear and fair procedures for accounting and performance management particularly when tied to a reward system. Where rewards are based on achievement (eg number of sales made) then ethical decision making may be affected. Unethical decision making may also increase where unethical behaviour is unpunished or even supported by the organisation. For example the way the directors communicate and the mixing of personal and company resources without a clear way to separate them and holding staff accountable for not making timely payments for personal matters.

(b)
The Managers of Zee have made recommendations which include the development of a strategic plan for the company. The company's organisational structured should be aligned to the strategic plan and also the need to have clear a performance system with better accounting controls. The implementation of these recommendation is would improve the performance of the company and boost employee morale in that their considerations are taken up. Some of the benefits would include among others;

1. Development of a strategic plan with clear vision, mission, structure and objectives helps manage expectation and build trust
2. Zee Ltd would be more proactive than reactive and better manage unforeseen events like Covid-19
3. Instils a shared sense of responsibility with clear vision and mission
4. Improved operational efficiency defined structures and work flow
5. Improved staff satisfaction and less micro management would increase staff morale and drive performance
6. Performance systems aligned to strategic objectives cascaded down would create a culture of performance and motivate staff
7. Proper organization structure with aligned individual, team and organization objectives would help improve overall company performance

8. Improved communication and information flow between departments and individuals in the company

(c)
Performance indicators for Zee Ltd should be those that measure specifically the company's performance from warehousing and logistics as these would be critical to the success of the business. The identified KPIs for these CSF are as follows;

1. Ware house occupancy – monitored by measures such as percentage area occupied, number of security breaches per ware house
2. On time cargo delivery – monitored by measures such number of trucks that arrive on time, truck breakdowns, etc

SOLUTION FOUR

(a) (i) **MRP1 Explanation**

MRP1 is a materials planning and scheduling system and a shop floor control and reporting system. MRP1 calculates the raw materials required to complete a plant's period production plan and schedules materials for components, sub-assemblies and finished products. It is a computer system which involves 'exploding' the quantities through the bills of material. MRP1 aims to minimise inventory levels and hold-ups in production. It follows that the aim of MRP1 is to maximise the efficiency in the timing of orders for materials, while at the same time ensuring efficient scheduling of the manufacturing and assembling processes.

(ii) **MRP1 Justification for a Hotel**

In a hotel offering a la carte service, the JIT system is most appropriated for the finished good, i.e. the dish is not prepared until the order is received. But for a buffet, basic ingredients are frequently used. Therefore, a buffet would be organised on MRP1/EOQ basis but special order meals or a la carte meals would be organised on JIT basis.

(b) **Most Important Factor Determining Success of MRP1**

An MRP system is dependent on detailed provision of the material and component requirements for production. The key factor is therefore maintaining current bill of material files. Any alteration in product specification must be reported so that the altered material requirements flow into the inventory purchasing process.

(c) The EIS draws data from internal (from internal MIS and decision support systems) and external sources (e.g. from competitors, legislation, external data bases, etc.). The EIS then transmits this information to senior management in a summerised and easy to use form. The information is then used to make both strategic decisions, both structured and unstructured.

One of the main reasons why AP Ltd's EIS is becoming expensive to operate is the amount of data which has been, and is being, accumulated. For an EIS to be effective there is a requirement for large amounts of information to be easily accessible: the data should be on-line and up-to-date as much as possible. This has disc storage implications which increases overtime as the volume of information increases.
The increased costs do not end with disc storage, however. As the system is required to handle larger volumes of data, there are numerous knock-on costs. The larger the data base the more processing power required to conduct straightforward operations. Therefore, another increased expense may be a requirement to invest in hardware as the original processor proves inadequate to handle the volume of information within acceptable response times.

Data is obtained from various external sources; this may be causing a requirement for extra disk storage in excess of the amount required as a result of the normal growth of the databank.

The information requirements of the executives using an EIS may change overtime. This means that, however carefully the system was set up originally, there will be costs involved in making changes to the way in which the system is set up. The degree with which maintenance and support costs increase will be dependent to some extent on the original design of the programs and data base and to what extent the information requirements alter.

Another area where the costs may increase is the network service. As the volume of data increases, particularly if appropriate hardware investment is not made, it is likely that it will take longer to extract the required information. This will result in greater costs of actually using the line. The rental of the line may also have increased.

The EIS uses data collated from various sources. There are potential costs associated with the capture of this data: large amounts of data may need to be manually keyed in which has implications on staffing costs or the cost of hiring an agency to do the work.

(d) A Ltd can speed up and facilitate the process of change by using a change agent. Often the change agent's role is performed by someone from outside the organisation, who has not absorbed the culture and values it possesses (although it is not essential that an outsider is used).

The change agent role may be played by an outside consultant, a specialist within the organisation, a new manager, or an enlightened manager who is able to look beyond traditional approaches.

The role, then, is not to solve problems but to teach the organisation how to solve them itself. The change agent is there to set in motion the collection of information and the building of models of the organisation, prior to indicating where intervention may be of use in a particular situation, and to guide their use.

The change agent is also a powerful intervention tool, using him/herself as a trigger for action. Much of their influence springs from the way they relate to the client. Therefore, they must live the values they are trying to inculcate.

SOLUTION FIVE

(a) **Control performance management**

Unrealistic or inflexible strategic goals and targets
An organisation can be overly ambitious in setting strategic goals which are unrealistic. For example, increasing market share from 20% to 50% in three years in a highly competitive industry. As a lack of progress towards the goal becomes apparent it can demotivate managers and employee as successes and improvements are seen as insufficient. Furthermore, raised stakeholder expectations will inevitably be disappointed undermining confidence in the management team and leading to change, instability and uncertainty.
Alternatively, in some industries the external business environment can change so much as to render existing strategic goals obsolete. An inflexible approach to strategic goal setting and performance measurement may mean organisations continue to pursue strategies or actions which fail to have a positive impact or worse, exacerbate corporate decline.

Risk of information overload

The volume and frequency of information in organisational reports can result in information overload, which occurs when the availability of too much information can hinder effective decision making.
Organisations should periodically review the volume and frequency of management reports so that information remains useful and managers have the capacity to determine and implement positive actions. In relation to performance control, one approach which can be used to reduce the risk of information overload is management by exception. This entails that managers should only be informed of a situation if control data shows a significant deviation from standards or targets (for example, if actual results are significantly different from budget). In this way, the aim of management by exception is to allow management to focus on the important tactical and strategic tasks, rather than becoming overwhelmed in operational-level data and statistics. The process of reporting should add value to a manager's performance, and not dominate the role of management.

Inadequate performance measurement

Inadequate performance measurement will mean that an organisation has liTT Ltde idea of which areas are performing well and which **need to improve**. If quality of product and speed of delivery are the main sources of competitive advantage, a business needs to know how good it is at these things.
For example, if an organisation measures only **conventional accounting results,e.g.** it will know how much inventory it has and how much it has spent, say, on 'carriage out', but it will not know the **opportunity cost** of cancelled sales through not having inventory available when needed, or not being able to deliver it on time. Equally the **quality** of products needs to be measured not only in terms of sales achieved but also in terms of **customer complaints** and feedback: again the cost is the opportunity cost of lost sales.
Therefore, part of the management accountant's role is to ensure adequate performance measurement actions and controls are in place across all aspects of the business.

(b) **Non-financial performance measures**

Non-financial performance measures can be provided **quickly** for managers. They are likely to be **easy to calculate**, and **easier for non-financial managers to understand** and therefore to use effectively. There are problems associated with choosing the measures and there is a danger that **too many such measures could be reported**, overloading managers with information that is not truly useful, or that sends conflicting signals. There is clearly a need for the information provider to work more closely with the managers who will be using the information to make sure that their needs are properly understood.
The strongest drivers of competitive achievement are the intangible factors, especially **intellectual property, innovation** and **quality.** Non-financial measures have been at the forefront of an increasing

trend towards **customer focus** (such as TQM), **process re-engineering programmes** and the creation of **internal markets** within organisations.

Arguably, non-financial measures are **less likely to be manipulated** than traditional profit-related measures and they should, therefore, **offer a means of counteracting short-termism**, since short-term profit at any expense is rarely an advisable goal.

Remember, the ultimate goal of commercial organisations in the long run is likely to remain the maximisation of profit, and so the **financial aspect cannot be ignored**.

A further danger is that non-financial performance measures might lead managers to pursue detailed operational goals and become blind to the overall strategy in which those goals are set. Therefore, a combination of financial and non– financial measures is likely to be most successful.

(c) **The scope of corporate ethics**

Corporate ethics may be considered in three contexts:

(i) The organisation's interaction with national and international society
(ii) The effects of the organisation's routine operations
(iii) The behaviour of individual members of staff

Influencing society

The organisation operates within and interacts with the political, economic and social framework of wider society. It is both inevitable and proper that it will both influence and be influenced by that wider framework. Governments, individual politicians and pressure groups will all make demands on such matters as employment prospects and executive pay. Conversely, organisations themselves will find that they need to make their own representations on such matters as monetary policy and the burden of regulation. International variation in such matters and in the framework of corporate governance will affect organisations that operate in more than one country. It is appropriate that the organisation develops and promotes its own policy on such matters.

Corporate behaviour

EW Ltd should establish corporate policies for those issues over which it has direct control. Examples of matters that should be covered by policy include health, safety, labelling, equal opportunities, environmental effects, political activity, bribery and support for cultural activities.

Individual behaviour

Policies to guide the behaviour of individuals in EW Ltd are likely to flow from the corporate stance on the matters discussed above. EW Ltd must decide on the extent to which it considers it appropriate to attempt to influence individual behaviour. Some aspects of such behaviour may be of strategic importance, especially when managers can be seen as representing or embodying the organisation's standards. Matters of financial rectitude and equal treatment of minorities are good examples here.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ZAMBIA ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA 3.6: ADVANCED FINANCIAL MANAGEMENT

FRIDAY 16 JUNE 2023

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

INSTRUCTIONS TO CANDIDATES

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

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

SECTION A

QUESTION ONE – (COMPULSORY)

Savannah Limited is a diversified company operating in different industries on the African Continent. Shares of the company are traded on the Lusaka Securities Exchange (LuSE) , and currently have a market price of K3.20 per share. The company's dividend payments over the last five (5) years are as follows:

Year	Dividend Per Share (DPS)
2021	0.35
2020	0.32
2019	0.30
2018	0.29
2017	0.28

The Board of Directors of Savannah Limited are currently considering two main investment opportunities: one in the Construction sector and the other in the Agriculture sector. Both projects have short tenures and their associated cash inflows are as follows;

Year	Construction	Agriculture
	K' million	K' million
1	85	180
2	175	195
3	160	150

The investment in Construction would cost K400 million while that in Agriculture would cost K405 million. The Management of the Company has identified the industry beta of Construction and Agriculture as 1.2 and 1.6 respectively. However, a research conducted by management revealed that Savannah Limited's beta is 1.5. The average return on the companies listed on the Securities Exchange is 25% and the yield on Treasury bill is 20%.

Required:

(a) Explain how the capital asset pricing model (CAPM) can be used to calculate a project-specific cost of capital for Savannah Limited, referring in your discussion to the key concepts of *systematic risk*, *business risk* and *financial risk*. (8 marks)

(b) (i) Compute the Net Present Values (NPVs) of both projects, using the Dividend Growth Model to derive Savannah Limited's cost of equity (cost of capital) as a discount rate. (6 marks)

(ii) Compute the NPV of both projects, using CAPM to derive discount rates, which take into account the risk associated with the individual projects. (6 marks)

(c) Some Key performance indicators (KPIs) for Savannah Limited are given as follows:

Area	Indicator
Return on Investment (ROI):	25%
Discounted Payback:	2.5 years

Using values from (b)(ii) above, determine the KPIs for the two projects, and advise management regarding their suitability and acceptability. (6 marks)

(d) Savannah Limited exports and imports goods and services in many countries for which it receives and makes payment in foreign currency. This exposes the company to foreign exchange risk. As a Financial Consultant to the company, suggest four (4) approaches that the company can use to hedge against foreign exchange exposure. (4 marks)

(e) Discuss the nature and causes of the problem of capital rationing in the context of investment appraisal, and explain how this problem can be overcome in reaching the optimal investment decision for a company. (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

Trimpack Limited is a quoted company, located in the main business area of Lusaka and was incorporated in 2012 as a private company. Prior to incorporation, Trimpack operated under business name, Trim Trading and General Dealers for over ten (10) years when the owner, Mr. Tim Peters coopted friends and family to take up shares to form Trimpack Limited. Mr. Tim Peters retained 40% of the share capital and now the company has many shareholders including three (3) venture capitalists owning a total of 28% of the shares and two (2) institutional shareholders owning a total of 15% of the shares.

Trimpack limited has grown over the years attracting prospective investors including equity and debt investors. The Board has been under pressure to further grow the business and increase shareholder value.

An extract of the statement of financial position of Trimpack Limited as at 31 December 2021 is shown below:

Details	**ZMW'000**
Equity finance	
Ordinary shares (K1 nominal value)	25,000
Reserves	15,000
Non-current liabilities	
17% 5year Bonds (K100 nominal value)	20,000
15% Preference shares (K1 nominal value)	10,000

Additional information

Trimpack Limited has an asset beta of 0.7869 and the ex-dividend market value of the company's equity is K65.5 million and the ex-dividend market value of the preference shares is K7.5 million.

The bonds are redeemable in five (5) years at a premium of 12% and have an ex-interest market value of K85 per K100 par value. The equity risk premium is 8% per year and the risk-free rate of return is 14% per year. Trimpack Limited pays tax at an annual rate of 30% per year.

During the monthly executive committee meeting recently held, the Managing Director (MD) briefed the meeting of the Board guidance to grow the company and the use of debt or additional equity should be considered where appropriate to achieve this growth. The Managing Director (MD) added that our use of the Net Present Value (NPV) based on the weighted average cost of capital ("WACC") shall continue as the primary tool for project appraisal, however, "I am not too clear on the financial risk of taking up more debt and the impact this could have on our returns."

Required:

(a) Calculate the following cost of capital for Trimpack Limited:

(i) Cost of equity capital (5 marks)

(ii) Cost of preference share capital (2 marks)

(iii) Cost of the five (5) year Bonds (5 marks)

(b) Calculate the WACC for Trimpack Limited (4 marks)

(c) Discuss the impact on the financial risk and returns of Trimpack Limited if the level of debt is increased. (4 marks)

[Total: 20 Marks]

QUESTION THREE

HMK Plc is a conglomerate company planning to divest itself of some of its divisions. The board of directors for HMK Plc believes that divestment will result in an increase in the return on equity from 12% to 15%. The current gearing level is 30% which the board believes will fall to 25% as a result of the divestment because some of the organisation's debt will be repaid with some of the proceeds from the sale of the divisions. HMK Plc pays 5% on its debt and 60% of earnings are paid out as dividends. In one of the divisions, a group of managers have proposed a buyout. The Board Chairperson thinks the proposal can be problematic to the future operation of the company. The Board Chairperson also expressed concern on the current structure of the treasury function of the group. This has caused the board of HMK Plc to consider changing treasury structure from a decentralised treasury function to a centralised treasury function. The Board Chairperson believes this will lead to maximisation of the shareholder's value.

Corporate tax rate payable is 20% per year.

Required:

(a) Calculate the effect on the earnings growth rate if HMK Plc proceeds with the divestment of its divisions. (6 marks)

(b) Discuss the potential problems with management buy-outs that the group of managers has proposed. (8 marks)

(c) Discuss how a centralised treasury department may increase value for HMK Plc. (6 marks)

[Total: 20 Marks]

QUESTION FOUR

JANS Inc. is a manufacturing company that plans to borrow £50 million for six (6) months starting on 1 January. The company intends to use this money as working capital for its huge foreign project in Ireland. Today is 1 November, LIBOR is 6% and JANS Inc. can borrow at 1% above LIBOR. The company is worried about the interest rate risk and the Financial Manager has suggested that interest rate futures could be used to hedge the exposure. However, the Chief Financial Officer (CFO) is of the view that other derivatives could be considered. The interest rate futures are available at the following prices: (contract size is £1million):

Month	**Price**
January	93.45
February	93.35
March	93.30
April	93.25

The contracts expire at the end of the relevant month. Assume that on 1 January LIBOR has risen to 9%.

Required:

(a) Illustrate how futures may be used by JANS Inc. to hedge the interest rate risk. (10 marks)

(b) Calculate the hedging efficiency and the effective interest rate. (4 marks)

(c) Explain other alternative derivatives that JANS Inc. could consider for hedging its exposure to interest rate risk. (6 marks)

[Total: 20 Marks]

QUESTION FIVE

(a) Zambezi Energies Limited has recently been registered as multi-national company dealing in the production and drilling of crude oil, in the Oil and Gas industry. Due to uncertainties surrounding the future prospect of the industry, management has hired you as a Financial Consultant to conduct *risk assessment* about the viability of the firm. In the course of the assessment, you developed a risk register containing various risks that have the potential to impact negatively the profitability of the company.

Required:

(i) Outline three (3) basic strategies the management of the company can adopt to mitigate the impact of the risks. (3 marks)

(ii) The company exports and imports goods and services from different countries from which it receives and makes payment in foreign currency. This exposes the company to foreign exchange risk. As a Financial Consultant to the company, suggest four (4) approaches that the company can use to hedge against foreign exchange exposure. (6 marks)

(b) At the last meeting of the Board of Directors of Zambezi Energies Limited, the Board resolved to establish a manufacturing facility in Asia and Europe.

Required:

Briefly describe five (5) strategic reasons that might have informed the management decision to undertake the Foreign Direct Investment (FDI). (5 marks)

(c) The growth of globalization has created more opportunities for the free movement of funds, which has resulted in *money laundering*. There have been global efforts from governments and international institutions to combat the vice.

Required:

(i) Describe in simple terms the concept of Money Laundering. (2 marks)

(ii) Explain the steps that can be implemented in a risk based approach, to combat the risk of money laundering (4 marks)

[Total: 20 Marks]

END OF PAPER

Formulae

Modigliani and Miller Proposition 2 (with tax)

$$k_e = k_e^i + (1 - T)(k_e^i - k_d)\frac{V_d}{V_e}$$

Two asset portfolio

$$s_p = \sqrt{w_a^2 s_a^2 + w_b^2 s_b^2 + 2 w_a w_b r_{ab} s_a s_b}$$

The Capital Asset Pricing Model

$$E(r_i) = R_f + \beta_i (E(r_m) - R_f)$$

The asset beta formula

$$\beta_a = \left[\frac{V_e}{(V_e + V_d(1 - T))}\beta_e\right] + \left[\frac{V_d(1 - T)}{(V_e + V_d(1 - T))}\beta_d\right]$$

The Growth Model

$$P_o = \frac{D_o(1 + g)}{(r_e - g)}$$

Gordon's growth approximation

$$g = br_e$$

The weighted average cost of capital

$$WACC = \left[\frac{V_e}{V_e + V_d}\right]k_e + \left[\frac{V_d}{V_e + V_d}\right]k_d(1 - T)$$

The Fisher formula

$$(1 + i) = (1 + r)(1 + h)$$

Purchasing power parity and interest rate parity

$$S_1 = S_0 x \frac{(1 + h_c)}{(1 + h_b)} \qquad F_0 = S_0 x \frac{(1 + i_c)}{(1 + i_b)}$$

Modified Internal Rate of Return

$$MIRR = \left[\frac{PV_R}{PV_I}\right]^{\frac{1}{n}}\left(1+r_e\right)-1$$

The Black-Scholes option pricing model

$$c = P_a N(d_1) - P_e N(d_2) e^{-rt}$$

Where:

$$d_1 = \frac{\ln(P_a / P_e) + (r + 0.5s^2)t}{s\sqrt{t}}$$

$$d_2 = d_1 - s\sqrt{t}$$

The Put Call Parity relationship

$$p = c - P_a + P_e e^{-rt}$$

Present Value Table

Present value of 1 i.e. $(1 + r)^{-n}$

Where r = discount rate
n = number of periods until payment

Discount rate (r)

Periods (n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0·990	0·980	0·971	0·962	0·952	0·943	0·935	0·926	0·917	0·909	1
2	0·980	0·961	0·943	0·925	0·907	0·890	0·873	0·857	0·842	0·826	2
3	0·971	0·942	0·915	0·889	0·864	0·840	0·816	0·794	0·772	0·751	3
4	0·961	0·924	0·888	0·855	0·823	0·792	0·763	0·735	0·708	0·683	4
5	0·951	0·906	0·863	0·822	0·784	0·747	0·713	0·681	0·650	0·621	5
6	0·942	0·888	0·837	0·790	0·746	0·705	0·666	0·630	0·596	0·564	6
7	0·933	0·871	0·813	0·760	0·711	0·665	0·623	0·583	0·547	0·513	7
8	0·923	0·853	0·789	0·731	0·677	0·627	0·582	0·540	0·502	0·467	8
9	0·941	0·837	0·766	0·703	0·645	0·592	0·544	0·500	0·460	0·424	9
10	0·905	0·820	0·744	0·676	0·614	0·558	0·508	0·463	0·422	0·386	10
11	0·896	0·804	0·722	0·650	0·585	0·527	0·475	0·429	0·388	0·305	11
12	0·887	0·788	0·701	0·625	0·557	0·497	0·444	0·397	0·356	0·319	12
13	0·879	0·773	0·681	0·601	0·530	0·469	0·415	0·368	0·326	0·290	13
14	0·870	0·758	0·661	0·577	0·505	0·442	0·388	0·340	0·299	0·263	14
15	0·861	0·743	0·642	0·555	0·481	0·417	0·362	0·315	0·275	0·239	15

(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0·901	0·893	0·885	0·877	0·870	0·862	0·855	0·847	0·840	0·833	1
2	0·812	0·797	0·783	0·769	0·756	0·743	0·731	0·718	0·706	0·694	2
3	0·731	0·712	0·693	0·675	0·658	0·641	0·624	0·609	0·593	0·579	3
4	0·659	0·636	0·613	0·592	0·572	0·552	0·534	0·516	0·499	0·482	4
5	0·593	0·567	0·543	0·519	0·497	0·476	0·456	0·437	0·419	0·402	5
6	0·535	0·507	0·480	0·456	0·432	0·410	0·390	0·370	0·352	0·335	6
7	0·482	0·452	0·425	0·400	0·376	0·354	0·333	0·314	0·296	0·279	7
8	0·434	0·404	0·376	0·351	0·327	0·305	0·285	0·266	0·249	0·233	8
9	0·391	0·361	0·333	0·308	0·284	0·263	0·243	0·225	0·209	0·194	9
10	0·352	0·322	0·295	0·270	0·247	0·227	0·208	0·191	0·176	0·162	10
11	0·317	0·287	0·261	0·237	0·215	0·195	0·178	0·162	0·148	0·135	11
12	0·286	0·257	0·231	0·208	0·187	0·168	0·152	0·137	0·124	0·112	12
13	0·258	0·229	0·204	0·182	0·163	0·145	0·130	0·116	0·104	0·093	13
14	0·232	0·205	0·181	0·160	0·141	0·125	0·111	0·099	0·088	0·078	14
15	0·209	0·183	0·160	0·140	0·123	0·108	0·095	0·084	0·074	0·065	15

Annuity Table

Present value of an annuity of 1 i.e. $\frac{1-(1+r)^{-n}}{r}$

Where r = discount rate
n = number of periods

Discount rate (r)

Periods (n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0·990	0·980	0·971	0·962	0·952	0·943	0·935	0·926	0·917	0·909	1
2	1·970	1·942	1·913	1·886	1·859	1·833	1·808	1·783	1·759	1·736	2
3	2·941	2·884	2·829	2·775	2·723	2·673	2·624	2·577	2·531	2·487	3
4	3·902	3·808	3·717	3·630	3·546	3·465	3·387	3·312	3·240	3·170	4
5	4·853	4·713	4·580	4·452	4·329	4·212	4·100	3·993	3·890	3·791	5
6	5·795	5·601	5·417	5·242	5·076	4·917	4·767	4·623	4·486	4·355	6
7	6·728	6·472	6·230	6·002	5·786	5·582	5·389	5·206	5·033	4·868	7
8	7·652	7·325	7·020	6·733	6·463	6·210	5·971	5·747	5·535	5·335	8
9	8·566	8·162	7·786	7·435	7·108	6·802	6·515	6·247	5·995	5·759	9
10	9·471	8·983	8·530	8·111	7·722	7·360	7·024	6·710	6·418	6·145	10
11	10·37	9·787	9·253	8·760	8·306	7·887	7·499	7·139	6·805	6·495	11
12	11·26	10·58	9·954	9·385	8·863	8·384	7·943	7·536	7·161	6·814	12
13	12·13	11·35	10·63	9·986	9·394	8·853	8·358	7·904	7·487	7·103	13
14	13·00	12·11	11·30	10·56	9·899	9·295	8·745	8·244	7·786	7·367	14
15	13·87	12·85	11·94	11·12	10·38	9·712	9·108	8·559	8·061	7·606	15

(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0·901	0·893	0·885	0·877	0·870	0·862	0·855	0·847	0·840	0·833	1
2	1·713	1·690	1·668	1·647	1·626	1·605	1·585	1·566	1·547	1·528	2
3	2·444	2·402	2·361	2·322	2·283	2·246	2·210	2·174	2·140	2·106	3
4	3·102	3·037	2·974	2·914	2·855	2·798	2·743	2·690	2·639	2·589	4
5	3·696	3·605	3·517	3·433	3·352	3·274	3·199	3·127	3·058	2·991	5
6	4·231	4·111	3·998	3·889	3·784	3·685	3·589	3·498	3·410	3·326	6
7	4·712	4·564	4·423	4·288	4·160	4·039	3·922	3·812	3·706	3·605	7
8	5·146	4·968	4·799	4·639	4·487	4·344	4·207	4·078	3·954	3·837	8
9	5·537	5·328	5·132	4·946	4·772	4·607	4·451	4·303	4·163	4·031	9
10	5·889	5·650	5·426	5·216	5·019	4·833	4·659	4·494	4·339	4·192	10
11	6·207	5·938	5·687	5·453	5·234	5·029	4·836	4·656	4·486	4·327	11
12	6·492	6·194	5·918	5·660	5·421	5·197	4·988	4·793	4·611	4·439	12
13	6·750	6·424	6·122	5·842	5·583	5·342	5·118	4·910	4·715	4·533	13
14	6·982	6·628	6·302	6·002	5·724	5·468	5·229	5·008	4·802	4·611	14
15	7·191	6·811	6·462	6·142	5·847	5·575	5·324	5·092	4·876	4·675	15

CA 3.6 - ADVANCED FINANCIAL MANAGEMENT SUGGESTED SOLUTIONS

SOLUTION ONE

(a) The capital asset pricing model (CAPM) assumes that investors hold diversified portfolios, so that unsystematic risk has been diversified away. Companies using the CAPM to calculate a project-specific discount rate are therefore concerned only with determining the minimum return that must be generated by an investment project as compensation for its systematic risk.

The CAPM is useful where the business risk of an investment project is different from the business risk of the investing company's existing business operations. In such a situation, one or more proxy companies are identified that have similar business risk to the investment project. The equity beta of the proxy company represents the systematic risk of the proxy company, and reflects both the business risk of the proxy company's business operations and the financial risk arising from the proxy company's capital structure.

Since the investing company is only interested in the business risk of the proxy company, the proxy company's equity beta is 'ungeared' to remove the effect of its capital structure. 'Ungearing' converts the proxy company's equity beta into an asset beta, which represents business risk alone. The asset betas of several proxy companies can be averaged in order to remove any small differences in business operations.

The asset beta can then be 're-geared', giving an equity beta whose systematic risk takes account of the financial risk of the investing company as well as the business risk of an investment project. Both un-gearing and re-gearing use the weighted average beta formula, which equates the asset beta with the weighted average of the equity beta and the debt beta. The project-specific equity beta resulting from the re-gearing process can then be used to calculate a project-specific cost of equity using the CAPM. This can be used as the discount rate when evaluating the investment project with a discounted cash (DCF) flow investment appraisal method such as net present value or internal rate of return.

Alternatively, the project-specific cost of equity can be used in calculating a project-specific weighted average cost of capital, which can also be used in a DCF evaluation.

(b) (i) Computation of NPV for both projects Using Savanna's Cost of Capital (WACC)

<u>Construction</u>

Year	Cash flow	Discount Factor	PV
	K' Million	@17%	K' Million
0	(400)	1	(400)
1	85	0.855	72.68
2	175	0.731	127.93
3	160	0.624	99.84
		NPV	**(99.55)**

Agriculture

Year	Cash flow	Discount Factor	PV
	K' Million	**@17%**	**K' Million**
0	(405)	1	(405)
1	180	0.855	153.90
2	195	0.731	142.55
3	150	0.624	93.60
		NPV	**(14.95)**

(ii) Computation of NPV for both projects using CAPM (project specific risk)

Construction

Year	Cash flow	Discount Factor	PV
	K' Million	@26%	K' Million
0	(400)	1	(400)
1	85	0.794	67.49
2	175	0.630	110.25
3	160	0.499	79.84
		NPV	**(142.42)**

Agriculture

Year	Cash flow	Discount Factor	PV
	K' Million	**@28%**	**K' Million**
0	(405)	1	(405)
1	180	0.781	140.58
2	195	0.610	118.95
3	150	0.477	71.55
		NPV	**(73.92)**

(c)

Area	Indicator (Benchmark)	Mining (Actual)	Agriculture (Actual)
NPV	Positive	Negative	Negative
Return on Investment (ROI):	25%	(35.6)%	(18.2)%
Discounted Payback:	2.5 years	>3 years	>3 years

All the metrics for the two projects including NPV, ROI and Payback are worse than the benchmark KPIs for Savannah Ltd. The project risks are higher, hence higher project cost of capitals. Both projects are not acceptable and should therefore be rejected.

Workings

Cost of Capital Using CAPM

Construction

$E(r) = R_f + B\,(R_m - R_f) = 20\% + 1.2\,(25 - 20) = 20\% + 6\% =$ **26%**

Agriculture

$E(r) = R_f + B\,(R_m - R_f) = 20\% + 1.6\,(25\% - 20\%) = 20\% + 8\% =$ **28%**

Cost of Capital (Using Cost of Equity derived from the Dividend Growth Model)

growth (g) = $\sqrt[n-1]{\frac{D1}{Do}} - 1 = \sqrt[5-1]{\frac{0.35}{0.28}} - 1 = 0.057$ or **5.7%**

$r_e = \frac{D0(1+g)}{P0} + g = \frac{0.35(1+0.057)}{3.20} + 0.057 = 0.173 =$ **17%**

(d) Foreign Exchange risk is the probability that a company will be unable to adjust its prices and cost to offset changes in exchange rates. It also means the risk that the domestic currency value of cash flows denominated in foreign currency may vary due to changes in the foreign exchange rate.

Ways of heading against Foreign Exchange Risk

1. Forward Contract

This involves a contract, which is tailor-made (taken out for the exact amount of currency required. The future exchange rate is fixed at the time the contract is entered into with the bank. The cost is then determined by the forward rate quoted by the bank.

2. Future Contract

This offers the opportunity to buy/sell currency in standard amount of a limited number of currencies at a specified time and rate.

3. Lead/Lag Payment

In the case of paying for goods in a foreign currency, it is possible to pay for the goods

in advance and thereby fix the exchange rate at the spot rate.

4. Currency Options

Here, the firm has the possibility of buying (call) or selling (put) currency at an agreed rate usually at any time within a specified period.

(e) In real-world capital investment decisions, companies are limited in the funds that are available for investment. However, the basis for investment decisions should still be to maximize the wealth of shareholders. The NPV decision rule calls for a company to invest in all projects with a positive net present value, but this is theoretically possible only in a perfect capital market, i.e. a capital market where there is no limit on the finance available. Since investment funds are limited in the real world, it is not possible in the real world for a company to invest in all projects with a positive NPV.

The reasons investment funds are limited in the real world are either external to the company (hard capital rationing) or internal to the company (soft capital rationing).

Several reasons have been suggested for hard capital rationing, such as that investors may feel that a company is too risky to invest in, with its credit rating being seen as too low for the amount of investment it needs. Perhaps capital markets may be depressed, so that there is a general unwillingness by investors to provide funds for capital investment. Capital may be in short supply due to 'crowding-out' as a result of high government borrowing, for example in order to finance an injection of funds into circulation to encourage or assist recovery from an economic recession for instance during the Covid -19 pandemic.

Soft capital rationing may be due to reluctance by a company to raise finance. For example, the amount of funds needed may be small in relation to the costs of raising the finance: or the company may wish to avoid dilution of control or earnings per share by issuing new equity; or the company may wish to avoid a commitment to paying fixed interest because it believes future economic conditions may put its profitability under pressure. Alternatively, the company may limit the funds available for capital investment in order to encourage competition between potential investment projects, so that only robust investment projects are accepted. This is the 'internal capital market' reason for soft capital rationing.

If a company cannot invest in all projects with a positive NPV, it must ensure that it generates the maximum return per dollar invested. With single-period capital rationing, where investment funds are limited in the first year only, divisible investment projects can be ranked in order of desirability using the profitability index. This can be defined either as the NPV divided by the initial investment, or as the present value of future cash flows divided by the initial investment. The optimal investment decision for a company is then to invest in the projects in turn, moving from highest profitability index downwards, until all the funds have been exhausted. This may require partial investment in the last desirable project selected, which is possible with divisible investment projects.

Where investment projects are not divisible, the total NPV of various combinations of projects must be compared, within the limit of the investment funds available, in order to select the combination of projects with the highest NPV. This will be the optimum investment decision. Surplus funds may be left over, but since the highest-NPV combination has been selected, the amount of surplus funds is irrelevant to the selection of the optimal investment schedule. Investing these surplus funds in a bank or in the money market would have an NPV of zero.

SOLUTION TWO

(a)

$$ß_g = ß_u + [ß_u - ß_d] \frac{V_D[1-t]}{V_E}$$

B_u = 0.7869
B_d = 0
V_d = 30 (book value of debt)
V_e = 40 (book value of equity)
T = 0.3
Calculated B_g = 1.20
(i) Cost of equity capital: Ke = Rf + (Rm – Rf) x B

14% + (8% x 1.2) = 23.6%

(ii) Cost of preference capital: Kpref = d/mv x 100

(15% x ZMW1)/ZMW0.75 x 100 = 20%

(iii) Cost of bonds is equivalent to the IRR of the market value, stream of interest payments and the redemption amount.

Year	C.F (ZMW)	D.f@15%	PV1 (ZMW)	D.f@20%	PV2 (ZMW)
0	(85)	1	(85)	1	(85)
1 – 5	11.9	3.352	39.89	2.991	35.59
5	112	0.497	55.66	0.402	45.02
Total			**10.55**		**(4.39)**

IRR = 15% + 10.55/14.95 x 5%

18.5%

(b)

Capital	MV (ZMW'000)	Weight	Cost	Weighted average
Equity	65,500	0.7278	23.6%	17.18%
Preference	7,500	0.0833	20%	1.67%
Bond	17,000	0.1889	18.5%	3.49%
Total	90,000			**22.34%**

(c)

Trimpack Limited has a gearing level of 37.4% measured as total debt to equity using market values which is lowly geared creating an opportunity take up more debt. Financial risk relates to the volatility in the earnings of the company arising from the nature of the business's activities and/or the amount of interest payable to debt holders. Therefore if debt in Trimpack Limited is increased, the amount of interest payable would increase thereby increasing the volatility in the earnings and the financial risk to the shareholders. However, there is a direct relation between risk and return, in that the higher the risk the higher the return. One measure that Trimpack Limited uses to determine this volatility is the beta factor which currently is 1.2, meaning the company has volatility higher than the market. Some of the key shareholders of Trimpack limited, such as venture capitalists, generally have a higher propensity to take up risks and would favor increasing the level of debt to finance more viable projects. This could arise from the possibility of debt being a cheaper source of finance compared to equity. The cost of debt for Trimpack Limited is about 18.5% while equity is about 23.6%, therefore debt is cheaper, mainly due to the tax savings on interest. Where the proportion of debt capital in the overall capital structure is increased, the WACC is likely to reduce, which in term makes projects more variable when discounted generating higher NPVs. However, if this is not well managed, equity shareholders might demand a higher return due to the increased financial risk thereby increasing the cost of equity. It is therefore necessary for Trimpack Limited to determine the level of gearing that would maximize the company return while optimizing the risk.

SOLUTION THREE

Before the restructuring the growth rate is equal to:

(a)

$$g = b\left[ROA + \frac{V_d}{V_e}\left(ROA - r\,(1 - T)\right)\right]$$

$$= 0.4(0.12 + 0.3(0.12 - 0.05(1 - 0.2))) = 0.0576 = 5.76\%$$

After the restructuring the growth rate is equal to:

$$g = b\left[ROA + \underline{V_d}\left(ROA - r\,(1 - T)\right)\right]$$

$$= 0.4(0.15 + 0.25(0.15 - 0.05(1 - 0.2))) = 0.071 = 7.1\%$$

(b) Potential problems with management buyouts:

i) Deciding on a fair price – management will obviously want to pay the lowest price possible, while the vendor will want to secure the highest possible price.

ii) Any geographical relocation may result in the loss of key workers.

iii) Maintaining a good relationship with suppliers and customers, particularly if key contacts that suppliers and customers were used to dealing with decide to leave as a result of the buyout.

iv) Availability of sufficient cash flow to maintain and replace non-current assets. This is one of the main problems with buyouts – cash is often very tight at the beginning of the venture.

v) Changes in work practices may not suit all employees.

vi) Maintaining financial arrangements with previous employees may be difficult – for example, pension rights.

vii) Many suppliers of funds will insist on representation at board level in order to maintain some control over how the funds are being used.

(c) A centralised treasury department should be able to evaluate the financing requirements of HMK group as a whole and it may be able to negotiate better rates when borrowing in bulk. The department could operate as an internal bank and undertake matching of funds.
Therefore it could transfer funds from subsidiaries which have spare cash resources to ones which need them, and thus avoid going into the costly external market to raise funds.
The department may be able to undertake multilateral internal netting and thereby reduce costs related to hedging activity. Experts and resources within one location could reduce duplication costs.
The concentration of experts and resources within one central department may result in a more effective decision-making environment and higher quality risk monitoring and control. Further, having access to the HMK group's entire cash funds may give the company access to larger and more diverse investment markets.

SOLUTION FOUR

(a) Interest at current interest rates: $50m \times {}^{6}/_{12} \times 7\% = £1,750,000$

Futures: SELL
January
Contracts: $50m \times {}^{6}/_{3} \div 1m = 100$

Future price on 1 January:

	1 November	1 January	31 January
Interest	94.00	91.00	
Futures	93.45	90.82	
Difference	0.55	0.183 ⅓ × 0.55	0

Illustration on 1 January:

Interest at current interest rates: $50m \times {}^{6}/_{12} \times 10\% = £2,500,000$

Profit in futures: $100 \times 1m \times \frac{93{\cdot}45 - 90{\cdot}82}{400} = £657,500$

NET COST 1,842,500

(b) Hedging efficiency $= \frac{657,500}{2,500,000 - 1,750\,000} \times 100\% = 88\%$

Effective interest rate $= \frac{1,842,500}{50m} \times \frac{12}{6} \times 100\% = 7.37\%$

(c) Alternative derivative products

(i) Forward rate agreements

Forward rate agreements (FRAs) are agreements, usually with a bank, that fix the rate of interest on future borrowings (or deposits). JANS Inc. could enter into an agreement to fix the interest rate at 7% (for example). If rates rose to a higher level the bank would compensate the company for the difference in interest incurred. If rates fell, then JANS Inc would have to make a similar payment to the bank.

A likely disadvantage of this product is that the rate negotiated by the bank will reflect the bank's own expectations of interest rate movements. If the bank also expects a significant rise in rates, JANS Inc. is unlikely to be able to negotiate a FRA at the rate it would need to achieve its targets.

ii) Interest rate swaps

Swaps are transactions that exploit different interest rates in different markets for borrowing. Two companies, or a company and a bank, swap interest rate commitments with each other. Thus JANS Inc. might be able to convert its floating rate interest into a fixed rate liability thereby fixing its interest costs at somewhere near to present levels. Swaps are cheap and easy to arrange, but it may be difficult to restrict the period to six months.

(iii) Over the counter (OTC) options

OTC options are similar in form to the traded options considered above, but instead of being purchased on the exchange, they are obtained from a bank and tailored to suit the company's specific requirements.

SOLUTION FIVE

(a) (i) Risk can be managed by the following ways:

(1) **Hedgin**g – this is a strategy to mitigate exposure to risk by undertaking equal and opposite transactions. An example is currency risk and interest rate risk. It involves implementation of action to ensure certainty of business outcome.

(2) **Diversification** – This involves strategies to avoid risk by spreading funds over a portfolio of investments. A portfolio of different investments with varying degrees of risk helps to reduce the overall risk of the business. This helps to prevent the concept of "putting all eggs in one basket".

(3) **Risk Mitigation** – This involves implementation of control to avoid investments in projects whose risk is higher than the shareholders required rate of return.

(ii) Foreign Exchange risk is the probability that a company will be unable to adjust its prices and cost to offset changes in exchange rates. It also means the risk that the domestic currency value of cash flows denominated in foreign currency may vary due to changes in the foreign exchange rate.

Ways of heading against Foreign Exchange Risk

(i) **Forward Contract**

This involves a contract, which is tailor-made (taken out for the exact amount of currency required. The future exchange rate is fixed at the time the contract is entered in to with the bank. The cost is then determined by the forward rate quoted by the bank.

(ii) **Future Contract**

This offers the opportunity to buy/sell currency in standard amount of a limited number of currencies at a specified time and rate.

(iii) **Lead/Lag Payment**

In the case of paying for goods in a foreign currency, it is possible to pay for the goods in advance and thereby fix the exchange rate at the spot rate.

(iv) **Currency Options**

Here, the firm has the possibility of buying (call) or selling (put) currency at an agreed rate usually at any time within a specified period.

(b) A company could undertake foreign manufacturing as a strategy to defend existing business due to the following;

(i) Demand for locally manufactured goods in a foreign country;

(ii) Reduction in cost of transportation (cost savings);

(iii) Government policy on tariffs, taxes, import controls and legislations;

(iv) Challenges with agents and licenses;

(v) The need to protect patents and intellectual property;

(vi) Protection of parent company shareholders against recession;

(vii) The search for profitable uses for under-employed resources;

(viii) The need to internationalize to match competitors, suppliers and customers

(ix) Fear of losing local market

(x) Development of global plan and strategies

(c)

(i) **Money Laundering** constitutes an illegal act of concealing the identities of parties to financial transactions. It is a term used to describe the process by which criminals disguise the original ownership and control of the process of criminal conduct by making proceeds appear to have been derived from a legitimate source.

(ii) **Risk-Based approach to anti money laundering**
The risk-based approach is a means of allocating supervisory resources with the effect to targeting areas of higher risk of money laundering.

Steps of risk-based approach are as follows:

(i) Identify the money laundering risk that are relevant to the business

(ii) Conduct detailed risk assessment on such areas as customer behavior and delivery channels.

(iii) Design and implement controls to manage and reduce any identified risks

(iv) Monitor the effectiveness of these controls and make improvements where necessary.

(v) Maintain records of action taken and reasons for those action

END OF PAPER

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ZAMBIA ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA 3.7: PUBLIC SECTOR AUDITS AND ASSURANCE

FRIDAY 16 JUNE 2023

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

INSTRUCTIONS TO CANDIDATES

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

   Section A: ONE (1) **Compulsory** scenario question.
   Section B: FOUR (4) Optional scenario questions. Attempt any THREE (3) questions.
3. Enter your student number and your National Registration Card number on the front of the answer booklet. Your name must **NOT** appear anywhere on your answer booklet.
4. Do **NOT** write in pencil (except for graphs and diagrams).
5. **Cell Phones** are **NOT** allowed in the Examination Room.
6. The marks shown against the requirement(s) for each question should be taken as an indication of the expected length and depth of the answer.
7. All workings must be done in the answer booklet.
8. Present legible and tidy work.
9. Graph paper (if required) is provided at the end of the answer booklet.
10. Formulae, Present Value, Annuity and normal distribution tables are attached at the end of the question paper.

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

SECTION A

This question is compulsory and must be attempted.

<u>QUESTION ONE</u>

Five (5) years ago, a Government decision was made for the Zambia Correctional Services to get into commercial production of maize meal. This decision was arrived at arising from increasing prices of maize meal which adversely affected the most vulnerable in society.

The objective of this decision was for the Zambia Correctional Service to produce sufficient quantities of maize meal and to supply it to specified areas across the country in order to mitigate the effects of high prices of maize meal to the people in those areas. Through this project, it was hoped that the maize meal prices in these areas will be stable because private millers will not be able to sell at prices significantly higher than those of the Zambia Correctional Services.

Capital and revenue grants of K3.0 million and K2.0 million respectively were given to the Zambia Correctional Services three (3) years ago.

The following conditions of the grants and the project were extracted from the agreement with the Zambia Correctional Services:

1. The capital grant meant for the purchase and installation of production equipment for the milling plant. The grant will not require to be repaid.
2. The revenue grant is repayable over a period of four (4) years from the year of commencing production.
3. The transportation of maize meal to the various locations will be made by contracted transport and transportation contracts to be made by competitive bids and valid for one (1) year before renewal.
4. The company should comply with laws and regulations regarding the quantity of Vitamin A to be added and laws relating to weight and the disposal of any waste arising from production.
5. All maize meal to be bagged is clearly Zambia Correctional Services labeled bags and only be sold through outlets managed by the Zambia Correctional Services.
6. The plant will be required to close for annual maintenance once in a year during which no production will take place.
7. Part of the revenue grant was to enable the Zambia Correctional Services grow its own maize for use at the Milling plant.

In was expected that within three (3) years of establishment, the milling plant would be able to reach production capacity level of 70% and the Zambia Correctional Services would have a market share of 40% in the areas that will be serviced by it. The milling plant would be required to make a profit margin on 5% compared to a margin of 20% made by existing private milling companies and it was hoped that through the establishment of the milling plant by the Zambia Correctional Services, prices of maize meal would be 15% lower than the prices charged by private companies.

The milling plant has been operational for three (3) years since its establishment. Cabinet has requested that the Office of the Auditor General (OAG) conducts compliance and performance audits of the operations of the milling company.

You have been assigned to lead a team of auditors to carry out the compliance and performance audits of the operations of the Zambia Correctional Services milling plant.

Required:

(a) Explain the application of ethical values in the Office of the Auditor General (OAG) giving a suitable example. (4 marks)

(b) Discuss five (5) ethical issues in the Office of the Auditor General (OAG) and suggest suitable responses. (6 marks)

(c) Explain the concept of materiality and how it is determined in compliance auditing. (4 marks)

(d) Describe the difference between direct reporting and attestation engagement in compliance auditing. (6 marks)

(e) (i) Explain the meaning of performance audits and state the objective of the performance audit of the operations of the Zambia Correctional Services milling plant. (3 marks)

(ii) Describe the performance audit procedures that will be done on the production of the milling plant in line with the value for money principles. (6 marks)

(f) (i) Explain the source of the criteria of the compliance audit and suggest four (4) matters that will form part of the criteria. (2 marks)

(ii) Suggest six (6) audit procedures that should be performed in the compliance audit of the milling plant. (9 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt any THREE (3) questions.

QUESTION TWO

Menda Ltd. is a utility company in one of the provinces of Zambia under the Industrial Development Agency (IDC). The company has a Board of Directors comprising executive and non-executive directors.

Menda Ltd. is facing serious liquidity problems arising from increased operational costs and a huge debt owing by its customers. The company received grants from central government in the last two (2) years to help the company continue its operations supplying water to the community. At a board meeting held attended by the Ministry of Finance Permanent Secretary, serious concerns were raised by management of the continued operations in the next twelve (12) months. The company obtained short term financing from its bankers which will enable it continue operations for another three (3) months. The Director of Finance of Menda Ltd. informed the meeting that draft financial statements show that the company will make a loss in the current year of K25 million, an increase in losses compared to the previous year. Management of Menda Ltd. presented its assessment of the ability of Menda Ltd. as a going concern and concluded that despite a serious liquidity situation the company is a going concern as evidenced by the cash flow prepared.

You work for the Office of the Auditor General (OAG) under the Public Department and Investment Audits division. You have been assigned to perform an audit of the financial statements of Menda Ltd. for the year ended 31 December 2022. Your assistant is concerned about the liquidity of the company and wants your advice on how to address the material uncertainty with regards the ability of the company as a going concern. A materiality figure of K2,300 was set for the financial statements as a whole. You are of the view that the risk of material misstatement of the revenue figure in the financial statements of Menda Ltd. is much higher than the rest of the other figures.

Required:

(a) (i) Discuss the importance of the assessment of the going concern ability of Menda Ltd. to the audit. (2 marks)

(ii) Evaluate and comment on management's assessment of the ability of Menda Ltd. as a going concern and explain your reaction as public sector auditors. (4 marks)

(b) Explain the impact of material uncertainty with regards the ability of Menda Ltd. as a going concern on the audit report. (4 marks)

(c) (i) Explain the possible use of the materiality figure computed at the planning stage of the audit of Menda Ltd. (4 marks)

(ii) Explain materiality for the financial statements as a whole and suggest a suitable performance materiality level for the audit of the financial statements of Menda Ltd. (3 marks)

(iii) Suggest appropriate materiality levels to be used in the audit of revenue in the audit of the financial statements of Menda Ltd. (3 marks)

[Total: 20 Marks]

QUESTION THREE

(a) You work for the Office of the Auditor General (OAG). You are part of a team of three (3) experts appointed by the International Organization for Supreme Institutions (INTOSAI) to carry out a peer review of the operations of a recently established Supreme Audit Institution of a North African Country.

In your evaluation of the operations of the Supreme Audit Institution (SAI) you ascertain that it was established by a Presidential decree in public interest over the misuse of public funds. The Head of the Supreme Audit Institution (SAI) reports directly to the President so that he is not undermined by anyone else in the performance of official duties.

Funding to the Supreme Audit Institution (SAI) is sufficient to meet its operations because its funds are appropriated from the presidential fund. You established that at the beginning of each year, the Head of the Supreme Audit Institution (SAI) submits for approval, a list of all planned audits to the Economic Advisor to the president. Annually the Supreme Audit Institution (SAI) prepares a consolidated audit report of all audits conducted and submits the report to the President for action. The President during opening of parliament for the following year gives a summary of the audit reports for the previous year.

Required:

Evaluate the operations of the Supreme Audit Institution (SAI) of the North African country against the provisions of the Lima declaration. (6 marks)

(b) Following elections and a new government coming into power in a Central African country, the president in his maiden speech emphasized the need for strict and proper management of public funds. The country has a Supreme Audit Institution (SAI) but its operations were controlled by the Executive and only performed audits as determined by the Executive. The President, has with immediate effect, directed that the Supreme Audit Institution (SAI) should be made independent of spending agencies and should not be under the authority of any other government institution.

During the debate of the annual budget, members of parliament expressed concern that the Leader of government business in the House, who is the Republican Vice President, informed the members that they could discuss all aspects of the budget except the defence and security budget. The argument is that matters of a security nature should not be discussed in parliament because parliamentary discussions are public. Members were requested to approve the budget without debating on the defence and security budget. One (1) of the members of parliament wanted to know if the defence and security departments are subject to audits by the Supreme Audit Institution (SAI). The leader of government business in the house guided that the defence and security budget could only be audited under the supervision of the Permanent Secretary in the Ministry of Defence because there would be need to regulate the information given to the auditors.

Required:

(i) Discuss the need for public sector audits of all public expenditure regardless of the nature of the expenditure. (4 marks)

(ii) Discuss the question of the Member of Parliament and the response regarding the audit of the defence and security operations by the Supreme Audit Institution (SAI). (6 marks)

(iii) Explain how adherence to ethical values by the Office of the Auditor General (OAG) and its staff will reduce the fears by Leader of government business in the House regarding the audit of defence and security operations. (4 marks)

[Total: 20 Marks]

<u>QUESTION FOUR</u>

You work for the Office of the Auditor General (OAG) as Senior Auditor under the Provincial Appropriations Audits division based at provincial headquarters in Livingstone.

You are planning the audit of the Livingstone City council for the year 2020. Due to lack of manpower, the office is behind in carrying out audits and the last audit was for 2019.

The accounting system and record keeping at the Livingstone City Council has been manual until in the year 2021 when the council acquired a state-of-the-art computer system. This was financed by a Norwegian government grant of $1.5 million. The Livingstone City Council solicited for the grant after realizing that record keeping was very poor with many incidents of missing documents. The major systems of rate and levy collections were computerized as well as the accounting system. At the time of migrating to the new computer system, it was very difficult to determine the amounts owed to the council for land rates relating to previous years because the records could in most cases be traced. Only those whose rate records were found had their balances transferred into the new system. The old unpaid debt for rates amounts to K13 million over the past many years.

During the year 2022, there was a voluntary separation scheme where employees who have served the council for more than twenty (20) years could opt to go for early retirement. The response was overwhelming resulting in a majority of accounts staff opting to go on voluntary separation. At the time of the audit, half of the staff who opted for voluntary separation had left. This created a shortage of staff resulting in an urgent recruitment of staff to replace those who had left. Separation packages were paid to staff that opted to leave based on the conditions in the collective agreement signed with the union. The payroll system is computerized and it will be used in computing separation packages.

The council did not maintain a non-current asset register during the time that it was using a manual accounting system making it very difficult to identify the assets owned by the council. The newly acquired IT system has a non-current asset register which was put into use immediately.

The council owns a large number of broken-down vehicles some of which have no engines stored at the council workshop. At a full council meeting held in 2022, it was resolved that all broken down vehicles should be disposed of. This follows an acquisition of a new fleet of vehicles using the constituent development funds received.

You have been assigned to conduct a financial audit of Livingstone City Council. You have been requested to combine the financial audit with a performance audit of the newly acquired computer system considering the value for money principles. In order to speed up the audit, you intend to use Computer Assisted Audit Techniques (CAATs) in carrying out the audit.

Required:

(a) (i) Describe how the audit team can use *test data* in the audit of the newly installed computer system. (4 marks)

(ii) Describe three (3) areas that the audit team may use audit software in the audit of Livingstone City Council. (6 marks)

(b) (i) Identify and explain four (4) audit risks in the audit of financial statements of the Livingstone City Council. (6 marks)

(ii) Suggest suitable responses for the audit risks identified in (i) above. (4 marks)

[Total: 20 Marks]

QUESTION FIVE

You work for the Office of the Auditor General (OAG) in the training department at Head Office.

At the end of each year, staff appraisals are conducted for all staff in the Office of the Auditor General (OAG). An evaluation of the results of the appraisals for the year just ended shows that there are training needs that require to be addressed in a number of areas. It is clear that effective communication from staff is lacking and usually the conclusions reached are not supported by the evidence obtained. An area of much concern is in forensic investigations conducted during the previous five (5) years. The Office of the Auditor General (OAG) received more than ten (10) instances of suspected fraud and corruption from whistle blowers. Preliminary investigations by the Office of the Auditor General (OAG) on the possible causes of failing to seek conviction on reported cases suggest that staff assigned to carry out investigations are compromised.

Arising from the training needs identified after the annual staff appraisals, the training department organized training on forensic investigations. The facilitators at the workshop emphasized the need for special skills when conducting forensic investigations and the fact the objective is to obtain a conviction and compensation from the people involved.

Participants in the workshop were required to describe the stages that should be followed in the forensic investigation and to briefly explain the work that will be performed at each stage. At the end of the training session there was a concern by a certain section of staff within the Office of the Auditor General (OAG) who raised concerns that some people in the forensic investigation unit have been in the unit for more than ten (10) years and they resist transfers to other departments within the office.

Required:

(i) Explain why the Office of the Auditor General (OAG can choose to conduct forensic audits and the objectives of such an audit. (6 marks)

(ii) Explain why forensic investigators require specialist skills and give two (2) examples of specialist skills needed of a forensic investigator. (6 marks)

(ii) Discuss the stages that should be followed in the intended forensic investigation in the case study and briefly explain the work to be done in each stage. (8 marks)

[Total: 20 Marks]

END OF PAPER

CA 3.7 PUBLIC SECTOR AUDITS AND ASSURANCE SUGGESTED SOLUTIONS

SOLUTION ONE

(a) Application of ethical values in the OAG:
The Office of the Auditor General and the staff are required to follow the ethical values contained in ISSAI 30: Code of Ethics

The standard contains five (5) ethical values and there are guidelines for the Supreme Audit Institution itself and guidelines for staff of the Supreme Audit Institution. When evaluating ethical dilemmas, consideration should be made for the Office of the Auditor General and for the staff who work for the OAG.

Example:

One of the ethical values is that of independence and objectivity and the guiding principles are as follows:

For the SAI – That SAI (OAG) should be independent of audited entities although it is a government body.

SAI Staff – Should be independent from political influence and free from political bias. Staff should not audit an entity they have recently been employees of.

(b) **Ethical issues in the audit:**

Ethical issue	Safeguard
1. The fact that staff in the Office of the Auditor General lack communication skills resulting in wrong audit conclusions shows that they lack professional competence. Audit conclusions are required to be based on sufficient appropriate evidence obtained during the audit.	The assignment of audit staff should be carefully done to ensure competent staff are assigned to carry out audits. Further, the recruitment of staff to the Office of the Auditor General should be carefully done so that communication skills is considered during recruitment.
2. The fact that most of the cases requiring investigation of fraud conducted by staff in the Office of the Auditor General (OAG) in the past have been thrown out of court suggests that there is lack of competence by staff involved in forensic investigations. Such investigations require specialist skills other than those required in normal audits.	Training should be arranged with a view to equip staff in the Office of the Auditor General (OAG) with skills that would enable them investigate cases better.
3. Staff receiving bribes in the course of investigations is a sign that such staff lack integrity and also are in breach of the ethical value of professional behavior.	The Office of the Auditor General (OAG) should have a code of conduct which its staff are supposed to follow. There should be

	sanctions against staff that breach the code of conduct.
4. The fact that people about to be investigated get to know of the impending investigations before they begin suggests that they are tipped by staff within the investigating team. This is in breach of the ethical value of confidentiality. Staff in the Office of the Auditor General are not supposed to disclose information without clearance. Tipping off of people about to be investigated is a crime.	Staff in the Office of the Auditor General should be educated on the importance of confidentiality. Further, there should be sanctions against staff that violate the ethical values by which they are supposed to work. The need for following ethical values should be emphasized during annual staff appraisals.
5. The staff involved in forensic investigations are required to be objective in the performance of their work. The fact that some people involved in forensic investigations have remained in the same department for more than ten (10) years and resist any transfer to other departments suggests that there is personal gain in remaining in this department. Such members of staff lack objectivity when carrying out their work.	The Office of the Auditor General should have policies in place that require rotating staff in order to ensure they remain objective. This is more the case with regards forensic investigations where the risk of being influenced through bribes and corruption is high.

(c) **Materiality in a compliance audit**

The concept materiality includes nature, context and value. Materiality may focus on quantitative factors such as the number of persons or entities affected by the particular subject matter or the monetary amounts involved as well as the misuse of public funds, regardless of the amount. Materiality is often considered in terms of value, but the inherent nature or characteristics of an item or group of items may also render a matter material (qualitative factors).

Quantitative materiality is determined by applying a percentage to a chosen benchmark as a starting point. This involves the exercise of professional judgment and reflects, in the auditor’s judgment, the measures that user(s) of the information are most likely to consider important. Quantitative materiality is mostly used in attestation engagement. In some cases, the qualitative factors are more important than the quantitative factors. Public expectations and public interest are examples of qualitative factors that may impact the auditor's determination of materiality.

Based on the selected subject matter, materiality is determined by identifying the level of non-compliance that is likely to influence the decisions of the intended user(s). In identifying materiality, the auditor pays attention to specific areas of legislative focus, public interest or expectations, requests and significant public funding as well as fraud.

Materiality is applied by the auditor in planning and executing the audit, and in evaluating the effect of instances of non-compliance. In the planning phase, assessing materiality helps the auditor to identify the audit questions which are of importance to the intended user(s). In performing the audit, the auditor uses materiality in the decision of the extent of audit procedures to be executed and the evaluation of audit evidence. In evaluating and concluding the audit, the auditor uses materiality to evaluate the scope of work and the level of non-compliance to determine the impact on the conclusion/opinion.

(d) **Direct Reporting and Attestation Engagement**
In a direct reporting engagement, it is the auditor who measures or evaluates the subject matter evidence against the criteria. The auditor is responsible for producing the subject matter information. The auditor selects the subject matter and criteria, taking into consideration risk and materiality. By measuring the subject matter evidence against the criteria, the auditor is able to form a conclusion. The conclusion is expressed in the form of findings, answers to specific audit questions, recommendations or an opinion.

When providing limited assurance, the conclusion conveys that nothing has come to the auditor's attention that the findings are not in compliance with the audit criteria. When the auditor has been aware of instances of non-compliance, the conclusion needs to reflect this.

In an attestation engagement the responsible party measures the subject matter against the criteria and presents the subject matter information, on which the auditor then gathers sufficient and appropriate audit evidence to provide a reasonable basis for forming a conclusion. The conclusion is expressed in the form of findings, conclusions, recommendations or an opinion.

In an attestation engagement with reasonable assurance the auditor's conclusion expresses the auditor's view that the subject matter information is/is not in accordance with the applicable criteria.

(e) (i) **Meaning of performance audits:**
These are audits that are performed with a view to establish whether activities or processes are done in accordance with the intended purpose considering the value for money principles of economy, efficiency and effectiveness.

Through performance audits it can be established whether there is room for improvements in the way activities are carried out.

The objective of the performance audit of the milling plant:
The objective of the performance audit of the milling plant is to obtain evidence on whether the by establishing the milling plant, maize meal prices in the areas serviced by the plant are stable and affordable to the people in these areas.

(ii) **Audit procedures for production of the milling plant:**

Efficiency:

1. Determine the cost of the maize grown by the Zambia Correctional Services by reviewing the production records of maize grown for own use.
2. Compare the cost of own grown maize with the cost of maize on the open market. If own grown maize is more expensive there may need to reconsider that maize should be grown instead of buying from the open market.
3. Establish the source of the Vitamins added to the maiz meal and confirm the price paid is the best without compromising on quality. Examine the procurement system and confirm that quotations obtained from a number of suppliers as per policy.

Efficiency:

For selected production cycles:

1. Determine the output of maize meal from given quantities of maize input.
2. Compare the output so determined from the industry standard in order to confirm that there was no wastage of inputs.
3. Review and quantify the waste and confirm it is within tolerable industry average if not this must be investigated.

Effectiveness:

1. Inquire from the public the availability of maize meal.
2. Determine the maize meal prices over a period of time and compare with the maize meal prices by private millers to establish whether maize meal prices by the Zambia Correctional Service are lower. If not the intended objective will not have been achieved.

(f) (i) **The source of the criteria for the compliance audit:**

The criteria in the performance audit will be the basis against which the subject matter information will be measured.

The criteria is measured and determined by the Public Sector Auditors and in this case will be derived from:

- o Legal provisions that exist with regard levels of Vitamin A that should be added to the maize meal.
- o Environmental laws and regulations regarding disposal of waste and emissions into the environment.
- o The agreement signed and entered into by the Government and the Zambia Correctional Services at inception.

(ii) **Audit procedures for the compliance audit of the milling plant:**

1. Inquire of management whether the revenue grant is being repaid and obtain evidence to confirm that.
2. Confirm that the award of contracts to transporters is being done through competitive bidding as per agreement with Government.
3. Determine the quantity of Vitamin A added to the maize meal and compare with the levels that should be added by law.
4. For a sample of deliveries from the milling plant review the delivery documents to confirm that no sales/deliveries are made to other than the outlets of the Zambia Correctional Services. Review the proof of delivery signed by the recipients of the maize meal.
5. Confirm that the milling plant underwent annual maintenance as required. Review costs of maintenance to confirm that.
6. Recalculate the cost of production for a sample of production runs and confirm that profit margin is not more than the agreed percentage.
7. For a sample of production runs and through inquiry of production department confirm that production capacity is more than 70%.
8. Confirm that all maize meal is bagged in Zambia Correctional Services labeled bags by inspecting finished products. Confirm that there are sufficient stocks of correctly labeled empty bags.

SOLUTION TWO

(a) (i) **Importance of going concern assessment to the audit:**
It is important for the auditors to assess the ability of Menda Ltd. as a going concern and also to evaluate management's assessment.

The basis upon which historical financial statements are prepared is that the entity is a going concern. If a company is not a going concern, the financial statements are supposed to be prepared on a break up basis.

The purpose of assessing the going concern ability is to determine the correct basis of preparing the financial statements.

(ii) **Management's assessment of the ability of Menda Ltd. as a going concern:**

Despite the adverse liquidity position of Menda Ltd. the management of the company have concluded that the company is a going concern. This is based on the fact that the government would not let the company to go into liquidation and will continue to financially support it.

There is need to evaluate management's assessment and the cash flow forecasts upon which that conclusion was reached.

It is unlikely that the central government would cease to support Menda Ltd. in view of the service that government is expected to provide to the community serviced by Menda Ltd. The financial statements of Menda Ltd. will therefore correctly be prepared on the historical cost basis unless government decides to cease funding with a view to close it.

If there is a material uncertainty with regards the ability of the company as a going concern, this will be explained in the audit report and the appropriate heading for material uncertainty regarding going concern.

(b) **Impact of material uncertainty regarding going concern:**
The impact of material uncertainty on the ability of Menda Ltd. as a going concern on the audit report will depend on the appropriateness of the basis for preparing the financial statements and the disclosure made by management in the financial statements.

In the case of Menda Ltd. the basis of preparing the financial statements will be the historical basis based on management's assessment. The implication on the report will be as follows:

If there is adequate disclosure by management in the financial statements regarding the material uncertainty, an unmodified opinion shall be issued with a note explaining the material uncertainty in the audit report.

If on the other hand there is inadequate disclosure, the audit opinion shall be modified either as a qualified opinion or adverse opinion.

(c) (i) **Use of materiality computed at planning stage:**

- Materiality in an audit of financial statements in public sector auditing can be used to assess the effectiveness of internal controls. Control deviations can be compared to the materiality set at planning stage.
- The materiality figure can be used to evaluate the effect of identified misstatements on the audit. Further, uncorrected misstatements will be compared to the materiality level set at the planning stage.
- Materiality will be used in forming the opinion in the auditor's report.
- Materiality level can be used in determining the sample size for testing.

(ii) **Computation of materiality of Menda Limited**

Materiality for the financial statements as a whole has been set at K2 300 for Menda Ltd. The auditors should set performance materiality which can be described as application materiality. This is set at a figure that is lower than the materiality for the financial statements as a whole of K2 300

The performance materiality will be the one the public sector auditors will use in the audit and the objective is that the auditors would wish to reduce to acceptable levels the risk that undetected misstatements will exceed the materiality for the financial statements as a whole of K2,300.

(iii) **Revenue figure:**

The information in the question states that revenue has a much higher risk of misstatement than the rest of the financial statements.

The auditors can set materiality for the specific assertions of revenue. Since the risk is much higher, the materiality level that should be set for revenue should be less than the materiality for the financial statements as a whole of K2,300 say at a level of K1,500. Further, a separate performance materiality for revenue can be set as a lower figure than K1,500 say K1,000

SOLUTION THREE

(a) **Evaluation of the Supreme Audit Institution:**

The Lima declaration gives concepts that must be followed when establishing the Supreme Audit Institution(SAI). In the evaluation of the operations of the Supreme Audit Institution (SAI) of the North African country the following were noted in comparison with the provisions of the Lima declaration.

1. One of the concepts of the Lima declaration is the independence of the Supreme Audit Institution (SAI) and the Head of the Supreme Audit Institution (SAI). The institution should not be under the direction of another institution and should independently manage its operations.
   The fact that the Supreme Audit Institution (SAI) of the North African country reports to the President is contrary to the provisions of the Lima declaration. The Office of the President is a custodian of public funds and is subject to audits by the Supreme Audit Institution.
2. The Supreme Audit Institution (SAI) should be financially independent and appropriated funds directly as per requirement of the institution. The fact that the institution gets funding from the Office of the President is contrary to the concepts of the Lima declaration and in this way, the institution will lose its independence and objectivity.
3. The concepts of the Lima declaration provide that the institution should decide on the topics to be audited every year and should not be under the influence of others. Approval of the subjects to be audited by the Economic Advisor to the President is contrary to the provisions of the Lima declaration.
4. The Lima declaration states that the Supreme Audit Institution (SAI) should decide the contents of the audit report and circulate the reports to the responsible body and the public. The requirement that the reports should be submitted to the president for action is contrary to the provisions of the Lima declaration.

(b) (i) **Need for all public funds to be audited by the SAI :**

- The Supreme Audit Institution (SAI) is the external auditor of custodians of public funds regardless of the nature.
- They are independent of public institutions subject to audits and as such they are objective in the performance of their duties.
- Public funds are supposed to be spent for the benefit of the general citizenry hence the need for independent scrutiny.
- The custodians of public funds are held accountable on how they use public funds hence the need for audits. The audits conducted by the Supreme Audit Institution (SAI) help those in charge of oversight to perform their duty.

(ii) **Discussion on the question of auditing defence & security operations:**

There are legal requirements regarding the functions and responsibilities of the Office of the Auditor General (OAG). The Member of Parliament who wanted to know whether the expenditure by the ministry of defence is subject to audit by the Office of the Auditor General was in order because he is representing the people of his constituency. It is a requirement that all public funds should be used in the interest of the general citizenry.

Below are some of the constitutional and other provisions:

S249 of the constitution of Zambia provides that the Office of the Auditor General (OAG) shall audit accounts of state organs, state institutions, provincial administration, provincial assemblies and local authorities and institutions financed from public funds.

Public Finance Act 2004 provides that the AG should audit the financial statements of any statutory corporation, and should have access to all documents and records etc. that are considered necessary for the purpose of carrying out the audit.

The Public Audit Act 2016 – provides that it is the duty of the Office of the Auditor General (OAG) to audit the accounts of every state body and other public institutions.

Evaluation of statement of the Permanent Secretary:
Going by the above legal provisions, the assertion by the Leader of government business in the House that Ministry of Defence expenditure cannot be subject to audit by the Office of the Auditor General (OAG) and could only be audited under the supervision of the Permanent Secretary – Ministry of Defence, is unconstitutional.

The Ministry of Defence is a recipient of public funds and is accountable for how the funds are used. There is no limitation on who can and cannot be audited by the Office of the Auditor General. The ministry of defence expenditure can and should be audited by the Office of the Office of the Auditor General (OAG).

(iii) **Ethical values in public sector auditing:**
The Office of the Auditor General (OAG) and its staff are subject to the ISSAI Code of Ethics ISSAI 30.

Among the ethical values under the code is that containing requirements for confidentiality and transparency.

With regards the **SAI** the code provides that – The SAI should establish a system for maintaining confidentiality 'as needed' especially against sensitive information.

The requirement for the **SAI staff** on confidentiality provides that:

- Staff should be aware of the legal obligations and also of the SAIs policies and guidelines on confidentiality and transparency.
- SAI staff should not disclose any information acquired as a result of their work without proper and specific authority, unless there is a legal or professional right or duty to disclose.
- SAI staff is required to maintain professional confidentiality after their employment has terminated, as well as during their employment.

Conclusion:

The SAI has a mandate to audit expenditure by the ministry of defence in accordance with the law. The fear of sensitivity of security matters are addressed by the SAI in selecting audit team members and the provisions of ISSAI 30 as explained above.

SOLUTION FOUR

(a) (i) **Use of test data in IT audit:**

Test data in an audit is used to test whether the IT system that is in place is operating the way that it was intended to do.

The payroll system at Livingstone City Council is computerized. The separation packages of the leavers will be computed using this system after inputting certain parameters. Test data could be used to test whether or not the computations of separation packages is done correctly as follows:

- The public sector auditors coming up with dummy data on people who have left employment.
- The auditors computing manually the terminal benefits that the dummy people will be entitled to.
- Requesting that the information by the public sector auditors is keyed into the computer system and processed.
- Comparing whether the results of the data processed are the same with the pre-determined results.
- If the results are the same, that signifies that the application is working the way it is intended to work. If the results are different, the public sector auditors will inquire of management and request for an explanation.

(ii) **Areas audit software may be used in the audit of Livingstone City Council:**

- Audit software could be used in selecting samples of rate payers that the auditors may wish to confirm balances for.
- The auditors may use audit software in performing substantive procedures on computerized applications such as the calculation of pay as you earn in the payroll system.
- Audit software could be used to get exception reports such as establishing rate payers who may not been billed in a particular period.
- Confirming the accuracy of the rates charged by confirming that these have been computed on the value of the property. This could be done using audit software for selected rate payers.
- Audit software could be used in checking the accuracy of the computations of separation packages paid to selected former employees.

(b) (i)/(ii) **Audit risks in the audit of Livingstone City Council:**

(i) **Audit risks**	(ii) **Suitable response**
1. Missing documents – The extent of missing documents will make it very difficult to verify financial information during the audit. This means that the auditors may not be able to obtain sufficient appropriate evidence for use to reach a conclusion.	Determine the extent of missing documents during the course of the audit and establish the impact on the audit and possible implication for the opinion.

2.	Poor record keeping regarding amounts owed by rate payers. This may result in the misstatement of the revenue of the Livingstone City Council for the year.	Perform substantive audit tests on revenue for the year and not place any reliance on internal controls. Obtain written representations from management confirming that it believes the revenue recognized in the year is correct.
3.	Accounts staff that opted for separation – Most of the staff in accounts opted for voluntary separation and new staff recruited to replace them. There is a risk that there could be errors in the financial statements due to the fact that experienced staff have left and new members of staff who are still learning are now involved in the final preparation of the financial statements. As a result, the risk of errors in the financial statements is high.	Emphasize to the audit team the need to observe professional skepticism throughput the audit. Testing larger samples in order to reduce sampling risk will be necessary.
4.	Migration from manual system to computer system during the year. There is a risk that the financial statements prepared using the new system may be misstated due to migration errors from a manual system to the new system. There is a risk that some figures may not be correctly transferred to the new system	Perform specific audit procedures on the changeover to ensure that the correct balances are transferred to the new system.
5.	There is a risk that tangible non-current assets may be misstated due to the presence of equipment and motor vehicles that are no longer in use most of which are clearly impaired. The non-current assets may be overstated.	Inquire from management whether an impairment exercise was carried out. If not, request management to carry out one. There will be need to obtain a listing of the tangible non-current assets in the financial statements and physically examine the assets for existence and valuation.

SOLUTION FIVE

(i) **Why the Office of the Auditor General (OAG can choose to conduct forensic audits and the objectives of such an audit.**

There are many reasons why the Office of the Auditor General (OAG can choose to conduct forensic audits. In particular, a properly executed fraud examination can address a number of issues, including:

- Identifying improper conduct
- Identifying persons responsible for improper conduct
- Stopping fraud
- Sending a message throughout the public sector that fraud will not be tolerated.
- Helping to facilitate recovery of losses
- Strengthening internal controls
- In certain instances a forensic audit may be required by law

The objective of a forensic audit is to gather evidence that is admissible before the courts of law. It also provides assurance to interested parties or organisations as to whether fraud occurred or not. In the case of an alleged fraud, the objective would be to discover if a fraud had actually taken place, to identify those involved, to quantify the monetary amount of the fraud (i.e. the financial loss suffered by the client), and to ultimately present findings to the client and potentially to court.

Forensic audit entails a process of resolving allegations from inception to disposition. Fraud examinations are done with the assumption that they will end up in litigation. It encompasses a number of tasks that may include:

- Assisting in fraud prevention and detection
- Obtaining evidence
- Reporting
- Testifying

(ii) **Why forensic investigators should have specialist skills:**

- Unlike routine audits, forensic investigations are varied and each may have its own characteristics.
- There are no previous working papers to refer to in planning the work that should be done. Individual situations dictate the work to be performed.
- Usually, forensic investigations may lead to litigation and giving evidence in court.

Skills of a forensic investigator:

- They should have investigative minds in order to establish the facts of the case and what happened.
- They should have some legal knowledge particularly matters to do with criminal law and assisting the court make fair decision.
- They should have interviewing skills because forensic investigations involve extensive interviews of staff and others to obtain information and seek admission of guilt.

(iii) **Stages of the intended forensic investigation:**

1. **Defining the scope and objectives**
During this stage the forensic investigators will require to determine the period that will be covered by the investigation. There will be need to establish the objective of the investigation so that the resultant report will meet the objective of the investigation.

2. **Gaining an understanding of the matters under investigations**
This is a fact-finding stage where the forensic investigator will want to establish what happened. At this stage the investigators will wish to develop a good understanding of the nature of the matter under investigation to enable them proceed with the subsequent stages.

   A good understanding of the procurement system and what was being done in practice.

3. **Securing & safeguarding information**
Suspects in an investigation will want to destroy any evidence that would implicate them. In the scenario, the suspects may want to destroy any forged documents. As soon as the investigation is set in motion, the investigators should move in to secure any information that will help in the investigation. This information may be physical or electronic. This may mean restraining access of the suspects to the premises unless required to help with the investigations.

4. **Inspecting financial information and documents**
This is the stage of critically reviewing the information and documents. For example, to be able to identify alteration or forgery of signatures etc.

5. **Interviewing organisation staff and third parties**
This is the stage where the investigators wish to gather information from people within and outside the organisation. Interviews will include those of information seeking and admission interviews.

6. **Drawing conclusions**
This is the stage of evaluating the information and other evidence obtained and reaching conclusions based on the evidence gathered.

7. **Reporting**
This is the stage of reporting giving details of the work done and the conclusions reached. The report and its conclusions should be clear, easily understood and fully supported by evidence.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

ADVISORY LEVEL

CA 3.8: PUBLIC SECTOR FINANCIAL MANAGEMENT

FRIDAY 16 JUNE 2023

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

INSTRUCTIONS TO CANDIDATES

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

2. This paper is divided into TWO (2) sections:
   Section A: One (1) Compulsory scenario question.
   Section B: Four (4) Optional Questions. Attempt any Three (3) questions.

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

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

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

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

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

8. Present legible and tidy work.

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

10. 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

(1) A Southern African Government has plans to construct a hospital. This project will be executed through the Health Ministry. This has been necessitated by the sharp increase in the number of chronic diseases patients in the country over the last five (5) years. The hospital will require specialized equipment to be imported from Europe at a cost of $2.5m.

All the operating expenses of the hospital, except for insurance and electricity will be payable at the end of the year. Insurance and electricity expenses are payable at the beginning of the year. A specialist doctor will be hired on a three (3) year contract. Repairs and maintenance expenses are expected to be K50,000 per annum.

The Government is currently spending K15.5million annually to send patients overseas for specialized medical treatment. It is estimated that this cost is expected to reduce by 80% annually upon commencement of operations at the hospital.

Some of the equipment to be used in the hospital will be sourced locally. This equipment will be paid for in two (2) equal installments at the end of year one and year two. However, this will not affect the commencement of operations. Operations will commence at the beginning of year one.

Government policy is currently to provide free medical services to its citizens. This is contained in the ruling party's manifesto and it is among the main campaign promises to the electorate during the just ended general elections. At the end of the ten (10) year period of operations the hospital is expected to be sold to private investors for a consideration of K10m.

The accounting firm which you are working for has been awarded a contract as a private consultant to appraise the viability of the proposed construction of the hospital. However there is uncertainty as to the method of appraisal to use since this is a public sector investment project. The manager has asked for advice.

The health Ministry recently received a letter from the Auditor General's office to notify them of the upcoming audit. The letter among other things explained that the financial statements and budget reports of the Health Ministry will also be subjected to audit.

Required:

(a) Explain the main differences between investment appraisal in the public sector and investment appraisal in the private sector. (8 marks)

(b) With regard to the upcoming audit:

(i) Explain the expanded scope of external audit in the public sector. (6 marks)

(ii) Explain the financial report and external audit and scrutiny process in the public sector. (6 marks)

(2) The Public Expenditure Management and Financial Accountability (PEMFA) have under gone through reforms to improve Public Financial Management (PFM) system in Zambia. Therefore, Public Financial Planning processes and budget preparation is critical for the Government.

Required:

(a) Explain the budgeting cycle in Zambia and some key financial planning and budgeting processes required for the government to understand the overall fiscal spending limit. (15 marks)

(b) Explain the different reforms that PEMFA has undergone between 2005 and 2012 to improve the Public Financial Management system in Zambia. (5 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt any THREE (3) questions.

QUESTION TWO

Central University is a public university in Zambia which was established in 2002. Since its establishment it has operated a number of ventures.

Central University is considering constructing a Library. The Library is expected to be completed in twelve months' time. It is partly financed by a capital grant from government and partly from the private sector. The library facility will also house some offices for members of staff.

During a recent management meeting there were concerns raised by some senior managers of the University that there was need to follow the guidelines provided by the Ministry of Finance in the design and implementation of public private partnerships. They further explained that there is a department under the Ministry of Finance responsible for the implementation of Public Private Partnership arrangements.

The Central University Bursar during the same meeting suggested the involvement of a financial consultant in the choice of delivery methods of the Public Private Partnership arrangement for the library facility.

Required:

You are the financial consultant of Central University. Write a report to the University Council detailing:

(a) Any twelve (12) functions of the Public Private Partnership unit at the Ministry of Finance and National Planning. (12 marks)

(b) The nature and operation of the four Public Private Partnership delivery models. (8 marks)

[Total: 20 Marks]

QUESTION THREE

You have recently been appointed as Finance Minister. The first thing you did was to familiarize yourself with the operations of the Ministry of Finance. You called for a meeting with the Permanent Secretary and the Director of Finance. One of the Agenda items was to discuss the theory behind the investment of surplus funds and the strategies that are used by public sector organizations, particularly the Public Finance Act of 2004 and the Local Government Act of 1991.

You were informed that the country has not yet set specific strategies for the investment of surplus public funds or indeed clear objectives of public investments. You requested to see the current bank statements and you noticed that an amount of US$60 million was given to an individual who invested it in an offshore account earning 5% interest per annum. The Director of Finance explained that he was instructed by the Secretary to the cabinet of Country A that since these were surplus funds; they needed to be invested in an offshore account.

A review of the council reports showed that an amount of US$2 Million was used to build a Stadium for Basket Ball players. The Councilors argued that they needed to keep the young population active by involving them in sporting activities.

It was however, noted that other council members had argued that they invest this surplus in the construction of twenty (20) flats once complete, they would be put on rent and charge US$600 per flat per month payable three (3) months in advance.

The councilors were against the centralization of the treasury management as they claimed that it was bureaucratic and would result into delayed implementation of the activities.

Required:

(a) Explain the guidelines for investment of surplus funds by Local Authorities as per local government Act 1991 S 138 which governs the investment of surplus funds in Zambia. (5 marks)

(b) Identify the factors that the Secretary to the Treasury or any authorized individual should consider in the choice of investment of surplus public funds. (4 marks)

(c) Explain portfolio theory in relation to investments and identify which short-term investments a private company can invest in and how it can utilize the Surplus funds. (5 marks)

(d) Describe the three (3) fundamental factors of treasury management as it applies in both public and private companies. (3 marks)

(e) Explain the reasons for having many aspects of treasury management centralized in Central Government. (3 marks)

[Total: 20 Marks]

QUESTION FOUR

The table below is an extract of Pillar III management of Assets and Liabilities performance indicators as reported in the 2017 Public Expenditure Financial Accountability framework (PEFA) report in Zambia.

INDICATOR/DIMENSION	SCORE	DESCRIPTION
I-10 Fiscal risk reporting (M2)	**D+**	**Monitoring is inadequate to know or manage the fiscal risks from public corporations and subnational government.**
10.1 Monitoring of public corporations	D	No single unit under the IDM Department is responsible for tracking the submission of audited financial statements from public corporations. In addition, the sample audited by the OAG shows that 50% of government corporations did not submit audited financial statements
10.2 Monitoring of subnational governments	C	Ministry of Local Government monitors the preparation of financial statements by subnational government/councils. The local government auditors undertake the audit of councils but most Councils have not been audited for the past 9 years as this unit is understaffed and their qualifications are not up-to-date.
10.3 Contingent liabilities and other fiscal risks	D	The government guarantees loans on behalf of agencies upon assessing their viability. The government through the IDM records the loan guarantees through the loan agreements (terms, amounts, and purpose). When these guarantees become payable and the agencies are unable to pay, the government recognizes the debt in the financial report.

Required:

(a) Explain to the Zambian authorities on measures to be undertaken to improve the score on fiscal risks relating to Assets and Liabilities. (6 marks)

(b) In respect of Indicator 10.2 on monitoring subnational government, discuss the measures the government should put in place to strengthen the monitoring mechanism before implementing fiscal decentralization. (8 marks)

(c) Explain the focus of PEFA assessments. (6 marks)

[Total: 20 Marks]

QUESTION FIVE

A Government of Country Q has intentions of privatizing all state owned companies. The Government was voted into power in a recent highly contested presidential and parliamentary election. The Government believes that privatization is the solution for these state owned enterprises to run efficiently. A Privatization Agency was therefore formed to oversee the whole process of privatization.

A private consultant was recently appointed by the agency to provide guidance to Government concerning the proposed privatization process. The consultant was asked to write a report to the agency to reveal his findings on issues surrounding privatization of state owned enterprises.

The following is an extract of the report addressed to the Director – Privatization Agency.

(1) Some of the state owned enterprises should not be privatized because they are providing public goods and services efficiently.

(2) The existence of "Market Failure" may not be conducive for the privatization.

(3) The privatization of the state owned enterprises may adversely affect the government budget in future.

(4) Externalities can cause market failures.

Required:

Discuss the sentiments raised by the private consultant in his report to the agency. In your discussion respond to each of the sentiments (1-4) raised by the consultant in his/her report.

[Total: 20 Marks]

END OF PAPER

Formula Sheet

Economic order quantity

$$= \sqrt{\frac{2C_0D}{C_H}}$$

Miller – Orr Model

$$\text{Return point} = \text{Lower limit} + (\frac{1}{3} \text{ x spread})$$

$$\text{Spread} = 3\left[\frac{\frac{3}{4} \text{ x transaction cost x variance of cash flows}}{\text{interest rate}}\right]^{\frac{1}{3}}$$

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

$$P_o = \frac{D_0(1+g)}{(r_e - g)}$$

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

$$s_1 = S_0 \text{x} \frac{(1+h_c)}{(1+h_b)} \qquad f_0 = s_0 \text{x} \frac{(1+i_c)}{(1+i_b)}$$

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	0·914	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	0·350	11
12	0·887	0·788	0·701	0·625	0·557	0·497	0·444	0·397	0·356	0·319	12
13	0·879	0·773	0·681	0·601	0·530	0·469	0·415	0·368	0·326	0·290	13
14	0·870	0·758	0·661	0·577	0·505	0·442	0·388	0·340	0·299	0·263	14
15	0·861	0·743	0·642	0·555	0·481	0·417	0·362	0·315	0·275	0·239	15

(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0·901	0·893	0·885	0·877	0·870	0·862	0·855	0·847	0·840	0·833	1
2	0·812	0·797	0·783	0·769	0·756	0·743	0·731	0·718	0·706	0·694	2
3	0·731	0·712	0·693	0·675	0·658	0·641	0·624	0·609	0·593	0·579	3
4	0·659	0·636	0·613	0·592	0·572	0·552	0·534	0·516	0·499	0·482	4
5	0·593	0·567	0·543	0·519	0·497	0·476	0·456	0·437	0·419	0·402	5
6	0·535	0·507	0·480	0·456	0·432	0·410	0·390	0·370	0·352	0·335	6
7	0·482	0·452	0·425	0·400	0·376	0·354	0·333	0·314	0·296	0·279	7
8	0·434	0·404	0·376	0·351	0·327	0·305	0·285	0·266	0·249	0·233	8
9	0·391	0·361	0·333	0·308	0·284	0·263	0·243	0·225	0·209	0·194	9
10	0·352	0·322	0·295	0·270	0·247	0·227	0·208	0·191	0·176	0·162	10
11	0·317	0·287	0·261	0·237	0·215	0·195	0·178	0·162	0·148	0·135	11
12	0·286	0·257	0·231	0·208	0·187	0·168	0·152	0·137	0·124	0·112	12
13	0·258	0·229	0·204	0·182	0·163	0·145	0·130	0·116	0·104	0·093	13
14	0·232	0·205	0·181	0·160	0·141	0·125	0·111	0·099	0·088	0·078	14
15	0·209	0·183	0·160	0·140	0·123	0·108	0·095	0·084	0·074	0·065	15

Annuity Table

Present value of an annuity of 1 i.e. $\frac{1-(1+r)^{-n}}{r}$

Where r = discount rate
n = number of periods

Discount rate (r)

Periods (n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0·990	0·980	0·971	0·962	0·952	0·943	0·935	0·926	0·917	0·909	1
2	1·970	1·942	1·913	1·886	1·859	1·833	1·808	1·783	1·759	1·736	2
3	2·941	2·884	2·829	2·775	2·723	2·673	2·624	2·577	2·531	2·487	3
4	3·902	3·808	3·717	3·630	3·546	3·465	3·387	3·312	3·240	3·170	4
5	4·853	4·713	4·580	4·452	4·329	4·212	4·100	3·993	3·890	3·791	5
6	5·795	5·601	5·417	5·242	5·076	4·917	4·767	4·623	4·486	4·355	6
7	6·728	6·472	6·230	6·002	5·786	5·582	5·389	5·206	5·033	4·868	7
8	7·652	7·325	7·020	6·733	6·463	6·210	5·971	5·747	5·535	5·335	8
9	8·566	8·162	7·786	7·435	7·108	6·802	6·515	6·247	5·995	5·759	9
10	9·471	8·983	8·530	8·111	7·722	7·360	7·024	6·710	6·418	6·145	10
11	10·37	9·787	9·253	8·760	8·306	7·887	7·499	7·139	6·805	6·495	11
12	11·26	10·58	9·954	9·385	8·863	8·384	7·943	7·536	7·161	6·814	12
13	12·13	11·35	10·63	9·986	9·394	8·853	8·358	7·904	7·487	7·103	13
14	13·00	12·11	11·30	10·56	9·899	9·295	8·745	8·244	7·786	7·367	14
15	13·87	12·85	11·94	11·12	10·38	9·712	9·108	8·559	8·061	7·606	15

(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0·901	0·893	0·885	0·877	0·870	0·862	0·855	0·847	0·840	0·833	1
2	1·713	1·690	1·668	1·647	1·626	1·605	1·585	1·566	1·547	1·528	2
3	2·444	2·402	2·361	2·322	2·283	2·246	2·210	2·174	2·140	2·106	3
4	3·102	3·037	2·974	2·914	2·855	2·798	2·743	2·690	2·639	2·589	4
5	3·696	3·605	3·517	3·433	3·352	3·274	3·199	3·127	3·058	2·991	5
6	4·231	4·111	3·998	3·889	3·784	3·685	3·589	3·498	3·410	3·326	6
7	4·712	4·564	4·423	4·288	4·160	4·039	3·922	3·812	3·706	3·605	7
8	5·146	4·968	4·799	4·639	4·487	4·344	4·207	4·078	3·954	3·837	8
9	5·537	5·328	5·132	4·946	4·772	4·607	4·451	4·303	4·163	4·031	9
10	5·889	5·650	5·426	5·216	5·019	4·833	4·659	4·494	4·339	4·192	10
11	6·207	5·938	5·687	5·453	5·234	5·029	4·836	4·656	4·486	4·327	11
12	6·492	6·194	5·918	5·660	5·421	5·197	4·988	4·793	4·611	4·439	12
13	6·750	6·424	6·122	5·842	5·583	5·342	5·118	4·910	4·715	4·533	13
14	6·982	6·628	6·302	6·002	5·724	5·468	5·229	5·008	4·802	4·611	14
15	7·191	6·811	6·462	6·142	5·847	5·575	5·324	5·092	4·876	4·675	15

CA 3.8 PUBLIC SECTOR FINANCIAL MANAGEMENT SUGGESTED SOLUTIONS

SOLUTION ONE

Part 1

(a) The most significant difference between public and private sector investment appraisal is the wider focus of the decision making for a public sector entity, which reflects more complex objectives in the public sector.

For the private sector the overriding objective is profit maximization. For the public sector, the outcomes of a project will be the benefits to society. Some of the benefits may be quantifiable in that they can be directly measured, for example an increase in GDP. Others may be difficult to quantify e.g. biodiversity. Were outcomes are non- quantifiable use can be made of outputs which can be measured and which relate to the desired outcome.

Because of the more complex outcomes that public sector entities seek to achieve, investment appraisal in the public sector is therefore focused not on how the cash flows of the individual entities will be impacted by a capital investment decision but rather on the net value of a project to society as a whole.

Because of this investment appraisal in the public sector is undertaken on the basis of cost benefit analysis, were all relevant costs and benefits to government and society are valued and the net cost or benefit of the decision determined.

These costs and benefits should wherever possible be based on market prices in order to ensure economic efficiency.

While entity cash flows are not the primary focus of investment appraisal in the public sector, they must still be examined as they are used to assess affordability in the financial case. Ultimately no matter how large the benefits to society of a project if a public sector entity does not have the budget and cash to pay for the project then it will not go ahead.

(b)

(i) In the public sector, 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 government requirements and in a way that promotes value for money.

This reflects the differences between public and private sector financial management, with a requirement to use compulsory taxation for the purposes democratically agreed, the requirement for government officials to act with fairness, integrity, and be accountable to citizens and service and service users and in the absence of competition and a profit motive the need to achieve value for money.

(ii) Financial statements and budget reports produced by MPSA are subject to external audit. External audit is undertaken by the auditor general. The auditor general is appointed by the president on recommendation of the state audit commission. They are to act independently and there is a high level of external audit coverage with use being made of system audits and value for money audits. These audits include recommendations to entities for improvements. A formal written response to audit recommendations is provided to parliament on a consolidated basis by treasury minute. In Depth hearings by the public accounts committee in parliament are conducted where adverse audit opinions had been received with controlling officers being called as witnesses. Reports on recommendations are also sent to the ministry of finance and MPSA responses to these recommendations are monitored by an outstanding issues subcommittee appointed by the PAC.

Part 2

(a) 1. Formulation of the budget: Budgets are formulated based on a clear overall strategy and are prepared in order to support the implementation of policies to achieve public service goals. The overall strategic direction for Zambia is contained in Vision 2030 and implemented through the Seventh National Development Plan. Implementation of the National Development Plan is supported by the medium-term expenditure framework which provides the estimates of revenue and expenditure. Annual budgets are aligned with medium-term plans, and there is effective participation by stakeholders in the process.

2. Approval of the budget: The budget is approved by the legislature, which should be able to effectively scrutinise government plans. In Zambia, the budget is subject to the scrutiny and approval of National Assembly.

3. Execution of the budget: There should predictability and control in budget execution, with standard procedures and processes followed, and ongoing monitoring in place to enable the effective application of controls. The execution of the budget in Zambia is largely devolved to individual Ministries, Provinces, and Spending Agencies in accordance with the financial management policies and regulations, processes, procedures and systems set by the Ministry of Finance.

4. Evaluation of the budget: Annual financial reports should be produced, and be subject to independent external audit and scrutiny. Budget evaluation should be used to assist in the formulation of future budgets, support scrutiny prior to approval, and be used to improve processes related to budget execution. The Auditor General reports to the National Assembly who scrutinise public expenditure and monitor the executive's response to recommendations arising from audit reports.

Some key financial planning and budgeting processes required for the government to understand the overall fiscal spending limit include:

(i) Robust macroeconomic and fiscal forecasts and the capacity to estimate the fiscal impact of changes in economic circumstances.
(ii) The capacity to develop and implement a clear fiscal strategy, and the ability to develop and assess the fiscal impact of revenue and expenditure policy proposals that support the achievement of the government's fiscal goals.
(iii) A medium-term perspectives in expenditure budgeting, with annual budgets derived from medium-term estimates and an alignment between medium-term budget estimates and strategic plans.
(iv) Effective, orderly and timely participation by relevant stakeholders in the budget preparation process.
(v) Realistic government budgets
(vi) Transparency in budget information
(vii) Legislative scrutiny of budgets

(b) The reforms between 2005 and 2012 include:

i) Strengthening the linkage between the annual budget and medium and long-term development plans through the Constitution of Zambia (Amendment) Act 2009. This provided for the budget to be laid before the National Assembly not later than the second week of October before the next financial year, providing a full year for programme implementation.

ii) The development of socio-economic simulation model, ZAMMOD, enabling improvements to macroeconomic and fiscal frameworks used in the preparation of annual budgets and medium-term plans including the Medium Term Expenditure Framework (MTEF) and National Development Plans (NDP).

iii) Further improvements to the MTEF and activity based budgeting frameworks.

iv) Public procurement enhancements through the enactment of the Public Procurement Act and the establishment of the Zambia Public Procurement Authority (ZPPA).

SOLUTION TWO

The University Council
Central University
Zambia

01/06/2022

REF: Functions of the department responsible for PPP'S at the Ministry of Finance and the PPP Delivery Methods

Part (a)

The functions of the Unit are to—
(1)
(a) Promote the participation .of the private sector in the financing, construction, maintenance and operation of any project irrespective of its cost;
(b) Advise Government on administrative procedures in relation to project development and on all matters of policy relating to public-private partnerships;
(c) Conceptualize, identify and categorize projects for purposes of this Act and prepare a project register as may be prescribed;
(d) Co-ordinate with contracting authorities in respect of any project;
(e) Develop technical and best practice guidelines in relation to all aspects of public-private partnerships, standardized bidding documents and public-private partnership agreement provisions for purposes of this Act and as may be prescribed;
(f) Receive and make an assessment of any proposed project submitted to it and give its recommendations to the contracting authority as to whether the project or facility (i) is affordable to a contracting authority; (ii) provides value for money; and (iii) presents optimum transfer of technical, operational and financial risks to the concessionaire;
(g) Examine the request for proposals to ensure conformity with the approved feasibility study and as may be prescribed;
(h) Monitor the competitive selection process and provide for review of the process if so required, under this Act;
(i) Monitor progress of implementation of public-private partnerships;
(j) Facilitate the internal and external auditing of projects and prepare a road map for project development;
(k) In liaison with the Zambia Development Agency, facilitate and market investment in public-private partnerships;
(I) Identify inter-sectorial linkages and facilitate approvals from the Ministry responsible for finance required under this Act;
(m) Approve terms of reference for consultancy assignments for a project and the consultant selection process for such assignment in liaison with the Technical Committee;
(n) Determine financial support and approve the allocation of contingent liability for any project, as prescribed by the Minister;

(o) Monitor issues pertaining to user levies and recommend to the Council, in liaison with the appropriate regulatory agency, mechanisms and procedures for setting, revising and collecting user levies and the settlement of disputes relating to user levies, notwithstanding any other law to the contrary;
(p) Train, and provide advisory services to, project officers; and
(q) Promote public-private partnership awareness and advocacy in Zambia.
(2) The Unit shall be responsible for ensuring the proper implementation, management, enforcement and monitoring of any agreement and the reporting by a concessionaire on an agreement.
(3) The Unit shall exercise and perform such other powers and functions as are conferred or imposed on it by, or under, this Act or any other written law.

Part (b)

PPP DELIVERY METHODS
PPP delivery methods include a range of different arrangements including:
(i) Leasing arrangements
Private sector entity pays to operate an asset that is owned by the public sector. The private sector operator then charges those using the asset or associated services, with the public sector passing demand risk to the private sector. The public sector will, however, usually be responsible for ensuring the availability of the asset and ongoing maintenance, which it will fund from the lease payments it receives. Leasing arrangements are more common when the public wants to add private sector expertise in the operation of a public utility.
(ii) Concessions
Concessions differ from a lease in that under a concession arrangement the public sector will transfer the long term right (25 years or more) to use an asset to a concessionaire, and this will include responsibility for operation and importantly financing and managing investment required to deliver services. Asset ownership at the end of a concession rests with the public sector. The concessionaire will generate revenue from the users of the asset, and in addition to financing the investment may also be required to pay a concession fee to the public sector. The public sector is able to transfer a range of risks under such arrangements including construction, demand and availability risks.
(iii) Design-build-operate (DBO)
Under a DBO arrangement the public sector will finance the construction of new assets and maintain ownership of them. The private sector partner will however be responsible for their design, build and operation. Payment to the private sector will generally be based on completion of the asset and then an output based operating contract, with demand and availability risk based on the specific terms of the arrangement but usually resting with the private sector operator. This kind of arrangement requires public sector financing, but brings private sector expertise in the design and construction of the asset and future operation.
(iv) Build-own-operate-transfer (BOOT).
This is used for new discrete assets rather than whole networks, in a BOOT the private sector will finance the build of a new public asset which it will own and operate. Payment will normally be received from the government by means of a unitary payment linked to the assets availability and/or use and the delivery of the related services. This unitary payment will not only provide the private sector operator with performance related compensation but also the financing and development costs associated with the asset and its ongoing maintenance.
Yours faithfully

Consultant

SOLUTION THREE

(a) Explain as per local government Act 1991 S 138 which governs the investment of surplus of public funds in Zambia

Investment of surplus funds is very important for both Private and Public institutions. In accordance with the Local Government Act of 1991 S 44, A council may invest any monies not required for immediate use in such securities as it may by resolution determine and may, as occasion requires, realise any investment so made.

As per S 138, it specifically states the available investment portfolios i.e.

i. Stocks, securities or debentures issued by or on behalf of the Government of the Republic of Zambia or in stocks, securities or debentures guaranteed by the Government.
ii. Deposits with the Zambia National Building Society.
iii. The Post Office Savings Bank
iv. Savings accounts of fixed deposit accounts with the Zambia National Commercial Bank
v. The stocks, bonds or debentures of any public body in Zambia

(b). Identify the various key issues that the Secretary to the Treasury or any of the authorized individual should consider in the investment of surplus public funds

The Public Finance Act 2004 allows the Secretary to the Treasury to authorize investment of surplus funds with a commercial bank at call or subject to notice not exceeding twelve months or in any of the investments permitted by law for the investment of trustee funds.

There four key factors which needed to be considered and these are as follows:

i. Liquidity-Liquidity defined as the ability to meet short-term obligations promptly and conveniently. Where cash is expected to be only available temporarily, or there is a risk that it will be required within the shortest possible time, financial instruments such as bank deposits should be preferred investments.
ii. Safety- The concentration should be on investments where capital returns is almost guaranteed, for example, deposits.
iii. Returns-Maximum returns should be the objective for a given risk profile. This is an efficient portfolio in the portfolio theory.
iv. Wider policy objective-there may be justifications connected with expanded policy aims to explain the reasons why investment in longer term and risker financial products which do not maximize direct financial returns from the investment.

(c). Explain the portfolio theory and what it is based on regarding investment and identify which short-term investments a private company can invest in. You are further required to identify what the private company can utilize the Surplus funds for.

The portfolio theory is concerned with the diversification of investments. Portfolio measures the risk of all assets held in a portfolio. It facilitates the construction of "efficient" portfolios that provide higher returns for the same level of risk or lower risk for the same expected return.

For a private company, surplus funds can be invested in any of the following;

i. Interest bearing deposits in banks or similar financial institutions
ii. Shares of listed companies
iii. Long-Term Debt instruments such as government bonds
iv. Short-term debt instruments which includes treasury bills and certificate of deposits.

Can also be used for declaration of declare dividends or share buy-backs in the event that they do not.

(d). Describe the three fundamental factors of treasury management as it applies in both private and private companies

Just like in the private sector, public sector treasury management is particularly aimed at management of the current assets and current liabilities. This is regardless of whether it is the whole government or individual entity. The three fundamental factors to treasury management are as follows;

i. Effective and efficient funding of operations which minimizes funding costs and matches cash flow requirements.
ii. The effective management of cash flow
iii. The management of financial risks to which cash flows are exposed.

(e). Explain as to the reasons why in Central Government, it is advantageous to have many aspects of treasury management Centralized.

The advantages of central treasury management include the following:

i. Centralized liquidity management- Cash is considered which avoids having a mix of overdrafts and cash surpluses in the various bank accounts. This allows bulk cashflows ensuring reduction of bank charges.
ii. Skilled and experienced staff- A centralized specialized function facilitates the engagement of experts who have knowledge of borrowing and investment opportunities and the use of hedging methods.
iii. Consolidated view of cash requirements across the public sector- Facilitates centralized view of expected borrowing needs, and enables borrowing to be organized in bulk which can result into lower interest charges.
iv. Better control- centralization can enable the exercise of better control through the use of standardized procedures and monitoring of risk.
v. Larger volumes of cash is available for investment- This provides better short-term investment opportunities.

SOLUTION FOUR

No.	
	a) Explain to the Authorities of Zambia on measures to be undertaken to improve the score on fiscal risks relating to Assets and Liabilities. • All liabilities and significant Asset acquisitions and disposal are authorized by law • Risks surrounding the balance sheet are disclosed and managed according to a published strategy • Employ mitigation techniques such as hedging and insurance instruments and placing a ceiling on liabilities to ensure that repayments remain affordable
	b) In respect of Indicator 10.2 on monitoring subnational government, what measures should government put in place to strengthen the monitoring mechanism before implementing fiscal decentralization • Harmonise local government budget and National budget • Improve quality of Audit and well co-ordinated follow up mechanism • Implement performance assessment manual at Local Government • Implement recognition awards for best performing local government
	c) State the focus of PEFA Assessments Focus of PEFA is on the extent to which a PFM system as an enabling element for three desirable fiscal and budgetary outcomes • Aggregate fiscal discipline requires effective control of the total budget and management of fiscal risks; • Strategic allocation of resources involves planning and executing the budget in line with government priorities aimed at achieving policy objectives • Efficient service delivery requires using budgeted revenues to achieve the best levels of public services within available resources.

SOLUTION FIVE

There four categories of goods in public finance, which are defined based on two attributes The first attribute is excludability (whether people can be prevented from using the good.) The second is whether a good is rival in consumption (whether one person's use of the good reduces another person's ability to use it.)

Pure public goods are non-excludable and non-rivalrous. These include defense, public parks and the air we breathe.

Under certain circumstances, private markets will allocate goods and services among individuals efficiently (in the sense that no waste occurs and that individual tastes are matching with the economies productive abilities).

If private markets are able to provide efficient outcomes and if the distribution of income were socially acceptable, then there would be liitle or no scope for government. In this case there would be need to privatize the state owned enterprises.

Market failure occurs when private markets do not provide goods and services efficiently.Externalities (undesirable side effects of a market economy e,g environmental pollution) can cause market failure.

The existence of externalities e.g pollution means that someone must pay for it. However, if forinstance company A polluted the waters company B may not be willing to clear the mess on behalf of company A. However the government (through state owned companies) may pay for removing the pollution as they are funded by the government. No private company may be willing to deal with externalities.

There are certain public services such as national defense which may not be privatized as they are a matter of state security and hold privileged information about the country which information should not be given to a private company as they may use it against the state.

Private markets may not be willing to provide public goods as it would be difficult to charge for the use of the goods as they are non-excludable (people who have not paid cannot be excluded from using the public good)

State owned income provide revenue budget inputs as they generate profit on their activities on behalf of government. The privatization of these companies may reduce the amount of revenue inputs in the national budget.

It would be advisable to take precautions in the privatization process considering the issues raised in (1-4). The price charged to investors who are buying the companies should be reasonable . The companies should be valued correctly so that they are sold at the right price. In addition not all institutions can be privatized as some institutions hold sensitive information about the country.

END OF SOLUTION