CA ZAMBIA PROGRAMME EXAMINATIONS

CA CERTIFICATE IN ACCOUNTANCY

CA 1.1: FINANCIAL ACCOUNTING

MONDAY 12 SEPTEMBER 2022

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 lists comprises only of financial statements?

A. Chairman's report, statement of changes in equity and Statement of Cashflows
B. Notes to the accounts, statement of financial position and statement of changes in equity
C. Statement of Profit or loss, statement of financial position, and non-current asset register
D. Notes to the accounts, receivables age analysis and statement of changes in equity

(2marks)

1.2 Which of the following is the correct calculation for sales?

A. Closing trade receivables balance + Cash + Irrecoverable debts + Sales Returns – Opening trade receivables balance
B. Closing trade receivables balance + Cash - Irrecoverable debts + Sales Returns + Opening trade receivables balance
C. Closing trade receivables balance - Cash + Irrecoverable debts - Sales Returns – Opening trade receivables balance

D. Closing trade receivables balance + Cash - Irrecoverable debts - Sales Returns + Opening trade receivables balance

(2 marks)

1.3 Which of the following is not a correct statement?

A. Provisions are amounts deducted from customer account balances
B. Impairments losses are reductions in asset carrying amounts other than normal depreciation
C. An asset is a resource under the control of the entity from which economic benefits are derived
D. A liability is an obligation to pay and arises from past transactions

(2 marks)

1.4 A cash book at 31 December 2021 shows a bank overdraft balance of K8,350. A bank reconciliation exercise revealed the following:

(i) A cheque for K753 drawn by you on 22 December has not been presented for payment.

(ii) A cheque for K428 received from a customer, and was deposited into the bank account, on 26 December 2021, has been dishonoured by the bank on 30 December 2021.

(iii) A dividend of K2,785 was received by the bank and is only appearing on the bank statement.

What is the corrected bank balance to be shown in the statement of financial position at 31 December 2021?

A. K 8,778 credit
B. K 5,993 credit
C. K 6,746 credit
D. K 3,208 credit

(2 marks)

1.5 Kapanga Cement Plc collects packing material on credit from Eco Paper manufacturing limited. During the year to 31 December 2021, Kapanga paid invoices totalling K139,703. The following were the opening and closing balances on the packing materials account:

	31 December 2020	**2021**
	K	**K**
Inventory in hand	5,176	4,639
Unpaid invoices	3,825	2,942

What amount was transferred to the statement of profit or loss as packing materials expense at 31 December 2021?

A. K139,357
B. K138,283
C. K140,049
D. K141,123

(2 marks)

1.6 On 1 January 2016 a building with a carrying amount of K800,000 was revalued to K 840,000. At that time the building had a life of 30 years remaining.

On 1 January 2021 the building was sold for K850,000.

What amount of profit on disposal will be reported in the statement of profit or loss for the year to 31 December 2021?

A K150,000
B K190,000
C K110,000
D K100,000

(2 marks)

1.7 Which of the following statements is correct?

A. A debit entry increases an income
B. A debit entry reduces a liability
C. A credit entry reduces a liability
D. A credit entry increases an expense

(2 marks)

1.8 Lenox has just completed the exercise of inventory count and determined the cost of inventory to be K 40,658. This amount includes an item that cost K 1,875 that was damaged in transit. The item can be sold for K 1,255 and only after repairing it at an estimated cost of K 345

What is the correct inventory valuation for inclusion in the financial statements?

A. K 38,783
B. K 40,038
C. K 39,693
D. K 39,128

(2 marks)

1.9 A company's gross profit margin increased from 18% to 24% calculated for the years ended 31 December 2020 and 31 December 2021 respectively. Which of the following events is most likely to explain the increase?

A. Closing inventory for 2021 was overstated
B. Closing inventory for 2021 was understated
C. Sales volume increased
D. A purchase made in December 2021 was mistaken as occurring in January 2022.

(2 marks)

1.10 The following is part of a company's draft statement of cashflows:

	K
Net profit before tax	172,660
Depreciation charges	(8,410)
Increase in accounts payables	5,250
Proceeds of sale of investments	11,120
Increase in inventory	(3,175)

Corrections to the above treatment of the listed items:

(i) Increase in accounts payable should have been deducted, not added
(ii) Increase in inventory should have been added, not deducted
(iii) Proceeds of sale of investments should not have been handled in this part of the statement of cash flows
(iv) Depreciation charges should have been added, not deducted

Which ones of the corrections are valid?

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

(2 marks)
[Total: 20 Marks]

SECTION B

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

<u>QUESTION TWO</u> – (COMPULSORY)

You are the Accountant of Monjo Limited and you haven been given the summarised trial balance for the year ended 31 December 2021 below.

Trial Balance for the year ended 31 December 2021	**DR**	**CR**
	K' 000	**K' 000**
Equity shares K1 each		10,000
Retained earnings	3,000	
Property at cost (50 years @ acquisition) (note (i))	5,000	
Plant and equipment at cost (note (ii))	27,000	
Acc- Dep: Property (note (i)) @ 1 January 2021		4,000
Acc- Dep: Plant and equipment @ 1 January 2021 (note (ii))		15,000
Inventory at 31 December 2021 (note (iii))	17,000	
Trade receivables	40,000	
Allowance for receivables (note (iv))		1,200
Prepayments and other receivables (note (v))	4,500	
Bank	2,000	
10% loan notes (note (vi))		12,000
Trade payables		20,000
Accruals and other payables (note (vi))		2,000
Sales revenue		75,000
Cost of sales	30,400	
Distribution costs	5,000	
Administration expenses	10,000	
Loan interest paid (note (vi))	600	
Taxation (note (vii))		800
Other incomes (note (viii))	-	4,500
	144,500	144,500

Additional relevant notes:

(i) The old property was exchanged with a new property costing K1,200,000 on 1 January 2021. The exchange allowance agreed was equal to the carrying amount of the old property. No adjustment has been made for this transaction. The new property has 10 years useful life and is depreciated on straight-line basis (no scrap value).

(ii) Plant and equipment is depreciated at 25% using reducing balance method.

Note: Annual depreciation has not been charged on property, plant and equipment and it should be charged to cost of sales.

(iii) On 31 December 2021 inventory count was done and it was discovered that inventory costing K1,000,000 had no net realisable value. Further goods sold on credit at a trade discount of 10% were recorded at gross price of K5,000,000.No adjustment has been made.

(iv) An allowance for receivables of 4% of trade receivables of the year-end balance should be recognised.

(v) On 1 April 2021 annual insurance for property, plant and equipment of K12,000,000 was paid and charged to administration expenses.

(vi) 10% Loan notes were acquired on 1 March 2021 and are repayable in 2025. Interest is paid every six months on 1 September and 1 March.

(vii) Income tax estimate of K900,000 should be provided for the year ending 31 December 2021.

(viii) Annual rent of K4,000,000 was received and credited to other incomes on 1 July 2021. The tenant pays rent in advance on 1 July every year.

Required:

(a) Prepare the statement of profit or loss for the year ended 31 December 2021 according to the requirements of the IFRSs/IASs. (10 marks)

(b) Prepare the statement of financial position as at 31 December 2021 in line with the requirements of the issued IFRSs/IASs. (10 marks)

[Total: 20 Marks]

QUESTION THREE

(a) On 4 April 2022 Michelo received his bank statements for the month ended 31 March 2022. The bank statement showed a balance of K417,400 (overdraft) as at 31 March whilst the cash book showed a balance of K525,990 (credit) as at that date. Upon examination of the cash book and the bank statement the following were discovered:

1. Bank charges of K2,010 had not been recorded in the cash book.
2. Michelo exceeded his overdraft limit during the month of March. The bank had therefore, charged a penalty of K2,500. This has not been recorded in the cashbook.
3. A sum of K12,500 had been wrongly credited to Michelo's bank account by the bank.
4. A cheque for K12,300 from Michelo's customer had been returned by the bank as dishonored. As the cheque had been dishonored, the bank charged Michelo K150. This has not reflected in the cash book.
5. A cheque that was issued for K84,700 was subsequently stopped and cancelled.
6. Cash receipts of K37,400 were posted as cash payment of K47,300 in the cash book.
7. On 21 March, Michelo deposited an amount of K6,500 into his personal bank account. This was deposited to the business bank account in error by the bank.
8. Standing orders and direct debits of K 11,150 had not been posted to the cash book.
9. Customers had deposited K21,700 directly to the bank account. This has not been recorded in the cash book.

10. Receipts of K51,200 deposited to the bank account on 31 March 2022, had not been credited by the bank.
11. The following cheques, drawn on the bank account, had not been presented to the bank for payment as at 31 March 2022:

Cheque Number	***Date Cheque was Written***	**K**
No.45280	11 March 2022	8,400
No 45350	28 March 2022	17,400
No 45370	31 March 2022	36,700

Required:

(i) Prepare the adjusted cash book for the month of March 2022.

(8 marks)

(ii) Prepare a statement on 31 March 2022 reconciling the adjusted cash book with the bank statement balance. (6 marks)

(iii) Explain two (2) reasons for preparing bank reconciliation on regular basis.

(2 marks)

(b) A petty cash book is created to facilitate small payments in a business or organization. It is meant to meet the day to day expenses and it is entrusted into the hands of the petty cashier.

Required:

Prepare a brief note to Michelo explaining how the petty cash book operates.

(4 marks)

[Total: 20 Marks]

QUESTION FOUR

(a) Annah and Bessie have been in partnership for a number of years. The partners did not have a partnership agreement.

The following balances have been extracted from the books as at 1 January 2021.

	K	
Capital Accounts:	Annah	160,000
	Bessie	240,000
Current Accounts:	Annah	10,400 Dr
	Bessie	8,200 Dr

On 1 July 2021 they decided to admit Claudette to the partnership. On this date, Claudette introduced capital of K150,000 into the partnership. The amount was paid into the bank account.

Non-current assets were revalued from K280,000 to K420,000. Inventory was revalued from K70,000 to K30,000. Goodwill was valued at K150,000. It was decided that goodwill would not remain in the books of the new partnership.

The three (3) partners agreed that:

- Profits and losses would be shared equally.
- Under the new partnership agreement 10% interest per annum on capital is allowed. The interest on capital is calculated on the adjusted balances after admission of Claudette.
- Each partner would receive a salary of K27,000 per annum. No interest on drawings would be paid.

The net profit before appropriation for the year ended 31 December 2021 was calculated at K471,800. Profits earned accrued evenly throughout the year.

The partners' drawings were:

Annah	K85,000
Bessie	K62,000
Claudette	K38,000

Required:

(i) Prepare the Capital Accounts for Annah, Bessie and Claudette for the year ended 31 December 2021. (8 marks)

(ii) Prepare the Appropriation Account for Annah and Bessie for the half year ended . 31 December 2021 (2 marks)

[Total: 10 Marks]

(b) On 1 January 2021, the following was extracted from the books of Katungu:

	K
Motor vehicles at cost	150,800
Accumulated depreciation on vehicles	95,700

During the year, the following occurred:

(1) On 1 February 2021, Motor Vehicle C was traded in against a motor vehicle D.
(2) Motor Vehicle C was purchased on 1 September 2017 for K80,000.
(3) Katungu wrote a cheque of K 40,000 for Motor Vehicle D. On the date of purchase, the list price of Motor Vehicle D was K71,400.
(4) Motor Vehicles are depreciated at 20% per annum on a straight line basis from the month of purchases to the month of sale.

Required:

Prepare the following account for the year ended 31 December 2021.

(i) Motor Vehicle at cost.
(ii) Motor Vehicle accumulated depreciation.
(iii) Disposal account for Motor Vehicle C.

(10 marks)
[Total: 20 Marks]

QUESTION FIVE

(a) You are the Accountant of Wanga Limited (Wanga) and you have been requested to correct the errors committed by your Accounts Assistant for the year ended 31 December 2021. When reviewing the errors below, you discovered that some errors were detected while others were not detected when you prepared the trial balance. The suspense account has a debit balance of K98,970.

(1) The non-current asset acquired on 1 January 2021 for K20,000 was correctly entered in the cask book and was debited to the repairs and maintenance account. The non-current asset is depreciated on a straight-line basis for 10 years (no residual value).

(2) The discount allowed of K50,250 was correctly entered in the receivables control account and was credited to the discount received account as K50,520.

(3) Rent payable of K85,300 was correctly entered in rent expense account and was credited to other payables account as K83,500.

(4) Purchases returns of K75,000 was debited to returns inwards account and credited to receivables control account.

Required:

(i) Explain the meaning of 'Error of Principle' and 'Error of Single entry'.
(3 marks)

(ii) Prepare the journal entries to correct the errors.
(10 marks)

(iii) Prepare the suspense account to clear the difference. (2 marks)

(b) Wanga has been sued by the customer for selling a faulty product and the customer is claiming compensation for the damage. In return Wanga has sued its supplier for supplying a faulty product claiming compensation. The Accounts Assistant does not know whether to recognise a contingent liability and a contingent asset or not.

Required:

Explain the recognition criteria for a contingent liability and a contingent asset.
(5 marks)
[Total: 20 Marks]

QUESTION SIX

Bonilindah is based in Southern province and has been in business for 23 years. In the past year, she has been busy training for the Olympics and has not kept proper records for her business. She has given you some information.
The balances as at 1 May 2020 are as follows:

	K
Motor vehicle (carrying amount)	4,750
Inventories	956
Trade receivables	2,632
Trade payables	1,745
Cash in hand	50
Cash at bank (overdrawn)	1,693
Capital	4,950

The bank statements for the year to 30 April 2021 are summarised as follows:

	K
Payments to suppliers	6,463
Cash takings	5,907
Sundry expenses	763
Motor expenses	505
Rent	1,800
Telephone	135

The balance on the bank statement at 30 April 2021 was K1,144. There were no timing differences.

You are given the following additional information:

(i) Closing inventory is valued at K1,324.
(ii) Bonilindah took goods which had a cost of K96 and would have been sold for K124 for her own personal use.
(iii) A telephone bill was received on 7 July 2021 for K75, this related to the quarter ended 30 June 2021.
(iv) Rent includes K1,000 paid on 1 January 2021 for the year to 31 December 2021.
(v) Bonilindah takes K60 every week out of the takings before banking them. She also spends K20 every week on petrol for the company van.
(vi) Depreciation is to be charged at 15% reducing balance.
(vii) Closing trade receivables and payables were K2,072 and K967 respectively. However, one customer, Caroline, has disappeared and her debt of K575 is not likely to be paid.
(viii) Bonilindah always keeps a cash float of K50.
(ix) Bonilindah makes sales to cash and credit customers. Customers taking credit always pay by cheque or bank transfer.

Required:

(a) Prepare the statement of profit or loss for BONILINDAH for the year ended 30 April 2021. (12marks)

(b) Prepare the statement of financial position for BONILINDAH as at 30 April 2021. (8 marks)

[Total: 20 Marks]

END OF PAPER

CA1.1 FINANCIAL ACCOUNTING SUGGESTED SOLUTIONS

SOLUTION ONE

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

SOLUTION TWO

(a)**Income statement of Monjo Limited for the year ended 31 December 2021**

		K' 000
Sales revenue	75,000 – 500 w3	74, 500
Cost of sales	30,400 + 120 w1 + 3,000 w2	(33, 520)
Gross profit		40, 980
Distribution costs		5, 000
Administration Exp	10,000 +1,000 w3 + 400 w4 - 3,000 w5	(8, 400)
Finance costs	600 + 400 = 1,200 w6	(1, 200)
Other incomes	4,500 – 2,000 w8 + 200 w1	2, 700
Profit before tax		29, 080
Tax	w7	(100)
Profit for the year		28, 980

(b)**Statement of financial position of Monjo Limited as at 31 December 2021**

Assets		**K' 000**
Non-current assets		
Property	w1	1, 080
Plant and equipment	w2	9, 000
		10, 080
Current assets		
Inventory	17,000 – 1,000 w3	16, 000
Trade receivables	40,000 – 500 w3 – 1,600 w4	37, 900
Bank		2, 000
Prepayments and other receivables	4,500 + 3,000 w5	7, 500
		63, 400
Total assets		73, 480
Equity		
Equity shares		10, 000
Retained earnings	(3,000) + 28,980	25, 980
		35, 980
Liabilities		
Non-current liabilities		
10% Loan notes		12, 000
Current liabilities		
Trade payables		20, 000
Tax payables	w7	900
Accruals and other payables	2,000 + 400 w6 + 2,000 w8	4, 600
		25, 500
Total equity and liabilities		73, 480

Workings

W1: Profit on disposal of property 1,200 – (5,000 – 4,000) = 200 other income
Dep 1,200/10years = 120 CoS N.B.V 1,200 – 120 = 1,080 SOFP

W2: Dep (27,000 - 15,000) = 12,000 x 25% = 3,000 CoS
N.B.V 12,000 – 3,000 = 9,000 SOFP

W3: Inventory 1,000 Dr Admin Exp 1,000 Cr
5,000 x 10% = 500 Sales 500 Dr Receivables 500 Cr

W4: Provision for bad debts 40,000 x 4% = 1,600 Receivables 1,600 Cr SOFP
Admin Exp 400 Dr (1,600 – 1,200)

W5: Prepaid insurance 12,000 x 3/12 = 3,000
Prepayment 3,000 Dr Admin Exp 3,000 Cr

W6: Loan notes interest 12,000 x 10% = 1,200 (600 paid +400 unpaid)

W7: Tax (800) – 900 = 100 P/L 900 SOFP

W8: Rent received in advance 4,000 x 6/12 = 2,000
Other income 2,000 Dr Accruals and other payables 2,000 Cr

SOLUTION THREE

(a) i)

Michelo's adjusted cash book

	K		K
Cancelled cheque	84,700	Balance b/d	525,990
Bank giro	21,700	Bank charges	2,010
Balance c/d	447,700	Overdraft interest	2500
		Dishonored Cheque	12,300
		Dishonored Cheque interest	150
		Standing order	11,150
	554,100		**554,100**

ii) Michelo's Bank Reconciliation Statement as at 31 March 2022

		K	K
Balance per bank			(417,400)
Adjustment for bank error			(12,500)
Bank error correction			(6,500)
			(436,400)
Add Outstanding Lodgement			51,200
			(385,200)
Less Outstanding cheques:	Number		
	45280	8,400	
	45350	17,400	
	45370	36,700	(62,500)
Balance as per revised cash book			(447,700)

iii) The importance of regular preparation of bank reconciliation:

- Identification of errors, such errors may have been made either by the bank, the company or both. For example, a business may have omitted to post receipts from receivables.
- Items such as bank interest, charges, standing order, direct debits and dishonoured cheques. These will be known by the bank but not identified by a business until it receives a bank statement and prepares the reconciliation.

b) A petty cash system operates by setting aside a small amount of cash, called a float. This is withdrawn from the business bank account normally by cashing a petty cash signed cheque from the bank, A responsible member of staff, who keeps it in a safe locked box, controls cash.

When a small amount of cash is required within the business, a petty cash voucher is completed setting out details of the cash requirement and authorised. This voucher is placed into the cash box and the cash handed over. Where a receipt is received in respect of purchase for which the cash was issued, this is then attached to the original withdrawal voucher.

At any one time, the total of the remaining cash in the box and the total of all vouchers in the box should equal the exact amount of the original float. At the end of a specific period, all vouchers are totalled, and a cheque is cashed for this exact amount bringing the total petty cash back to the original starting amount. This is known as the imprest system.

In most businesses, there is a requirement for small amounts of cash. For example, to purchase supplies for the canteen where there is no credit facility in the local shop, the purchase of stamps, newspapers, cleaning and other supplies and the reimbursement of staff incidental expenses. Therefore, the system must control the flow of cash, and regular spot checks should be done.

SOLUTION FOUR

(a) (i)

Partners' Capital Accounts

	Annah	Bessie	Claudette		Annah	Bessie	Claudette
	K	**K**	**K**		**K**	**K**	**K**
Goodwill	50,000	50,000	50,000	Bal b/d	160,000	240,000	Nil
Bal c/d	235,000	315,000	100,000	Bank	Nil	Nil	150,000
				Revaluation	50,000	50,000	Nil
				Goodwill	75,000	75,000	Nil
	285,000	365,000	150,000		285,000	365,000	150,000

Workings:

1. Revaluation surplus calculation:
   Non-current assets of K140,000 less inventory of K40,000 = K100,000

2. Goodwill in old ratio:
   Annah 150,000 x 1/2 = 75,000
   Bessie 150,000 x 1/2 = 75,000
3. Goodwill in new ratio:
   Annah 150,000 x 1/3 = 50,000
   Bessie 150,000 x 1/3 = 50,000
   Claudette 150,000 x 1/3 = 50,000

(a) (ii) Annah and Bessie Appropriation Account for half year to 31December 2021

		K	K
Net Profit			235,900
Share of profits	Annah	117,950	
	Bessie	117,950	235,900

(b)

(i) Motor Vehicle at cost

	K		K
Bal. b/d	150,800	Disposal	80,000
Bank - additions	40,000	Bal. c/d	142,200
Trade-in additions	31,400		
	222,200		**222,200**
Bal. b/d	142,200		

(ii) Motor Vehicle accumulated depreciation

	K		K
Disposal	54,668	Bal. b/d	95,700
Bal c/d	69,616	Profit or loss	28,584
	124,284		**124,284**
		Bal. b/d	69,616

(iii) Motor Vehicle C Disposal account

	K		K
Cost	80,000	Accumulated depreciation	54,668
Profit or loss	6,068	Trade in value	31,400
	86,068		**86,068**
		Bal. b/d	69,616

Motor vehicle C depreciation calculation

Year	**Cost**	**Dep rate**	**Period**	**Amount**
2017	80,000	20%	4/12 months	5,334
2018	80,000	20%	1 year	16,000
2019	80,000	20%	1 year	16,000
2020	80,000	20%	1 year	16,000
2021	80,000	20%	1/12 months	1,334

Motor Vehicle C Depreciation Calculation

Continuing	70,800	20%	1	14,160
Disposed of Motor Vehicle	80,000	20%	1/12	1,334
Addition	71,400	20%	11/12	13,090
				28,704

SOLUTION FIVE

(a)

(i)

Error of principle
Error committed when a correct amount is posted on the correct side in a wrong class or type of account.

Error of single entry
Error committed when double entry is not complete because only one entry has been posted.

(ii)

	Amount:	Account to Debit: Dr	Account to Credit: Cr
1.	K20, 000	Non-current asset	Repairs and Maintenance Exp
	K2, 000	Depreciation Exp	Accumulated Depreciation
2.	K50, 520	Discount Received	Suspense
	K50, 250	Discount Allowed	Suspense
3.	K1, 800	Suspense	Other Payables
4.	K75, 000	Receivables Control	Returns inwards
	K75, 000	Payables Control	Returns outwards

(iii) Dr Suspense Account [2 marks maximum] Cr

Opening balance	98, 970	Discount received (2)	50, 520
Other payables (3)	1, 800	Discount allowed (2)	50,250
	100, 770		100, 770

(b) Recognition criteria for a contingent liability and a contingent asset

IAS 37 uses a probability criteria to determine whether or not to recognise a contingent liability or a contingent asset.

A contingent liability
Probable- A provision is recognised in the financial statements.
Possible- A contingent liability is disclosed by note.
Remote- No action is taken.

A contingent asset
Probable- A contingent asset is disclosed by note.
Possible- No action is taken.
Remote- No action is taken.

SOLUTION SIX

(a)BONILINDAH Statement of Profit or Loss for the year ended 30 April 2021

	K'000	K'000
Sales (W1)		16,678
Less: Cost of Sales		
Opening Inventory	956	
Purchases(W2)	5,685	
Drawings	(96)	
	6,545	
Less: Closing Stock	1,324	5,221
Gross Profit		11,457
Less Expenses		
Telephone (135+25)	160	
Rent (1,800-750)	1,133	
Motor Expenses	1,545	
Sundry Expenses	763	
Bad Debts	575	
Depreciation	713	
Total expenses	4,889	
	4,889	
Profit for the year	**6,568**	

(b) **BONILINDAH**

Statement of Financial Position as at 30 April 2021

		K'000	K'000
Non-Current Assets			
Motor Van			4,037
Current Assets			
Inventory		1,324	
Trade Receivables		2,072	
Prepayment		667	
Bank		1,144	
Cash		50	
			5,257
	9,294		
Total Assets			
Capital and Liabilities		4,950	
Capital		6,568	
		11,518	
Add Profit		3,216	
	9,294		
Current Liabilities			
Accruals		25	
Trade Payables		967	
Total current liabilities			992

Trade Receivables

Balance b/f	2,632
Sales	6,611
9,243	
Bad debt	575
Bank	6,596
Balance c/d	2,072
9,243	

W2

Trade Payables

Bank	6,463

Balance c/d 967

7,430

Balance b/f 1,745

Purchases 5,685

7,430
W3

Bank
Account Cash Takings
5,907

Trade Receivables 6,596

12,503

Balance b/f
1,693 Payment to suppliers
6,463 Sundry Expenses
763 Motor Expenses
505
Rent 1,800

Telephone 135

Balance c/d 1,144

12,503
W4

Cash Sales:

Bank (c)	5,907
Drawings (60X52)	3,120
Motor Expenses (20X52)	1,040
Credit	6,611
	16,678

W5

	Depreciation
Motor Van	4,750 * .15
	= 713

W6

Drawings

Cash Takings 3,120 + Goods 96 = **3,216**

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA CERTIFICATE IN ACCOUNTANCY

CA 1.2 BUSINESS STATISTICS

WEDNESDAY 14 SEPTEMBER 2022

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/statistical formulae book MUST be provided. **Request for one if not given by the Invigilators.**

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 characteristic or phenomenon which is capable of being measured and changes its value overtime is called

A. Vector
B. Sample
C. Statistics
D. Variable

(2 marks)

1.2 A bag contains 9 white and 5 red balls. 6 balls are drawn at random. What is the probability that 4 are white and 2 are red?

A. 0.0420
B. 0.4169
C. 0.4196
D. 0.04196

(2 marks)

1.3 When conducting a regression analysis to fit the equation $Y = A + BX$, the variable that is random is;

A. The dependent variable
B. The independent variable
C. Both the independent and dependent variable
D. The coefficient of X

(2 marks)

1.4 If A and B are two (4) independent events, which of the following is not true?

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)

1.5 What is a statistic?

A. a sample characteristic
B. a population characteristic
C. an unknown parameter
D. a normally distributed observation

(2 marks)

1.6 The median of the observations 11, 12, 14, 18, x+4, 30, 32, 35 arranged in ascending order is 19. Then the value of x is

A. 18
B. 16
C. 18 and x + 4
D. 14

(2 marks)

1.7 C and D are mutually exclusive events. If $P(C) = 0.18$ and $P(D) = 0.05$, find $P(C \cup D)$.

A. 0.18
B. 0.05
C. 0.13
D. 0.23

(2 marks)

1.8 Commodity prices vary due to several factors, among which are location, inflation, time of the year. Prices for a certain commodity were taken in six different locations. The respective prices per location were; $50, 25, 27, 30, 35, 45$. What is the standard deviation of this data?

A. 35.33

B. 50

C. 106.7

D. 10.13

(2 marks)

1.9 The standard deviation measures the:

A. Kurtosis
B. Skewness
C. Average
D. Dispersion

(2 marks)

1.10 The price of a 10 liter container of cooking oil in the year 2020 is 35% higher than in the year 2018. If the 2020 price isK420, calculate the price in 2018.

A. K567
B. $K273$
C. K147
D. K295

(2 marks)
[Total: 20 Marks]

SECTION B

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

<u>QUESTION TWO</u> – (COMPULSORY)

(a) Applicants for a computer science engineering job are required to take a test of how fast they can write a computer program. The times in seconds, taken to complete the task by 6 applicants were as follows:

63, 229, 165, 102, 86, 74, 96, 124

Required:

Calculate:

(i) The mean (2 marks)
(ii) The median (2 marks)
(iii) The standard deviation (4 marks)

(b) Tests are carried out on three machines A, B and C to assess the likelihood that each machine will produce a faulty component. The results are summarised in the table.

	Faulty	Not Faulty
Machine A	3	12
Machine B	2	8
Machine C	5	15

Required:

A component is chosen at random from those tested. Find the Probability that the component chosen:

(i) is from machine A (2 marks)

(ii) is a faulty component from machine C (3 marks)

(iii) is not faulty or is from machine A (3 marks)

(iv) It is known that the component chosen is faulty. Find the probability that it is from machine B (4 marks)

[Total: 20 Marks]

QUESTION THREE

(a) The following marks have been obtained by a group of students in statistics (out of 100):

Test one	82	47	57	58	60	62	67	70	72	77	87
Test two	84	58	52	50	62	64	66	67	72	76	92

Required:

(i) Computer the coefficient of determination. (8 marks)

(ii) Fit the least square and comment on the relationship between test one (1) and two (2). (8 marks)

(b) Two (2) computers X and Y are to be marketed. A salesman who assigned the job of finding customers for them has 75% and 25% chances respectively of succeeding in case of computer X and Y. The computers can be sold independently. Given he is able to sale at least one computer. What is the probability that computer X has been sold? (4 marks)

[Total 20 Marks]

QUESTION FOUR

(a) A learning institution is conducting review on variations of number of students per department in the last three years. The table below summarizes the finding:

	Number of students per year		
Department	**2019**	**2020**	**2021**
Economics	250	290	350
Accounts	280	160	310
Business administration	100	240	150

Required:

(i) Construct a multiple bar char to represent this data. (6 marks)

(ii) What was the total number of students in the year 2020 for all the given departments. (2 marks)

(iii) What percentage of total number of students were from the accounts department for the three years? (2 marks)

(b) A sports organizing team bought various goods to prepare for an inter school competition. The Various packets of goods purchased for the event were classified according to their price ranges (in hundreds of kwacha). The table below shows the price classifications and number of goods.

Price range of goods	Number of goods
0 and less 10	40
10 and less 20	60
20 and less 30	70
30 and less 40	30

Required:

Using the given information, calculate:

(i) The average price of good purchased. (3 marks)
(ii) The standard deviation of the purchased goods (4 marks)
(iii) The median price of the purchased goods (3 marks)

[Total: 20 Marks]

QUESTION FIVE

(a) The regional sales manager has to set next quarter's sales quotas for the sales representative in the region. During the last five quarters, sales have been growing approximately linearly. The sales data is as follows:

Quarter	Sales(in thousands)
1	K110
2	132
3	150
4	176
5	194

Required:

(i) Plot the data and estimate the trend line using $x = 1$ for quarter 1.

. (12 marks)

(iii) What are the estimated values for quarters 6 and 7 respectively?

(2 marks)

(b) A student admitted to graduate school is told that the probability is 0.7 of receiving a full – tuition scholarship, and 0.3 of no scholarship and thus paying the full K15,000 tuition. Let X denote the student's tuition expenses:

Required:

(i) Construct and graph the probability distribution. (4 marks)

(ii) Find the student's expected tuition expenses. (2 marks)

[Total 20 Marks]

QUESTION SIX

(a) A machine produces bolts which are normally distributed with mean of 5 and standard deviation of 0.04, where measurements are in millimeters.

Find the probability that bolts are measures between 4.5mm and 5.4 mm.

(4 marks)

(b) Following are the marks obtained, out of 100, by two students Mutono and Kalenga in 10 tests.

Mutono	26	51	46	31	71	43	37	49	36	61
Kalenga	11	71	51	21	96	56	43	61	49	81

Required:

(i) Calculate the coefficient of variation for Mutono and Kalenga respectively. (14 marks)

(ii) Using results in (i) above, determine who is intelligent between Mutono and Kalenga. (2 marks)

[Total 20 Marks]

END OF PAPER

CA 1.2 BUSINESS STATISICS SUGGESTED SOLUTIONS

SOLUTION ONE

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

SOLUTION TWO

63, 229, 165, 102, 86, 74, 96, 124

(a)(i) 63, 74, 86, 96, 102, 124, 165, 229

$$\textbf{(a)}(ii)\ Median = \frac{96+102}{2} = 99$$

$$\bar{X} = \frac{\sum x}{n} = \frac{63+229+165+102+86+74+96+124}{8} = 117.375$$

(a)(iii) S

$$= \sqrt{\frac{(63-117.4)^2+(229-117.4)^2+(165-117.4)^2+(102-117.4)^2+\cdots+(124-117.4)^2}{8-1}}$$

$= 55.2$

b)

	Faulty	Not Faulty	Totals
Machine A	3	12	15
Machine B	2	8	10
Machine C	5	15	20
Totals	10	35	**45**

I. $P(A) = \frac{n(A)}{n(S)} = \frac{15}{45} = \frac{1}{3}$

II. $P(F|C) = \frac{P(F\cap C)}{P(C)} = \frac{5}{45} \times \frac{45}{20} = \frac{1}{4}$

III. $P(\bar{F} \cup A) = P(\bar{F}) + P(A) - P(A \cap \bar{F}) = \frac{35}{45} + \frac{15}{45} - \frac{12}{45} = \frac{38}{35}$

IV. $P(B|F) = \frac{P(B\cap F)}{P(F)} = \frac{2}{45} \times \frac{45}{10} = \frac{1}{5}$

SOLUTION THREE

(a)

Test one (x)	Test Two (y)	xy	x^2	y^2
82	84	6888	6724	7056
47	58	2726	2209	3364
57	52	2964	3249	2704
58	50	2900	3364	2500
60	62	3720	3600	3844
62	64	3968	3844	4096
67	66	4422	4489	4356
70	67	4690	4900	4489
72	72	5184	5184	5184
$\sum x = 575$	$\sum y = 575$	$\sum xy = 37\ 462$	$\sum x^2 = 37\ 462$	$\sum y^2 = 37593$

(i)

$$r = \frac{(9)(37462) - (757)(575)}{\sqrt{[9(37563) - (575)^2][9(37593) - (575)^2]}} = 0.862$$

$$r^2 = 0.74$$

(ii)

$$b = \frac{9(37462) - (575)(575)}{(9)(37563) - (575)^2} = 0.8779$$

$a = \bar{y} - b\bar{x} = 63.88 - 56.085 = 7.80$

$\hat{y} = 7.80 + 0.88x$

There is a positive linear relationship between Test one and Test two.

(b)

Given that $P(X) = 0.75$, $P(Y) = 0.25$

Since X and Y are independent $P(X \cap Y) = P(X)P(Y) = 0.1875$

$$P(X|X \cup Y) = \frac{P(X \cap (X \cup Y))}{P(X \cup Y)} = \frac{P(X)}{P(X \cup Y)}$$

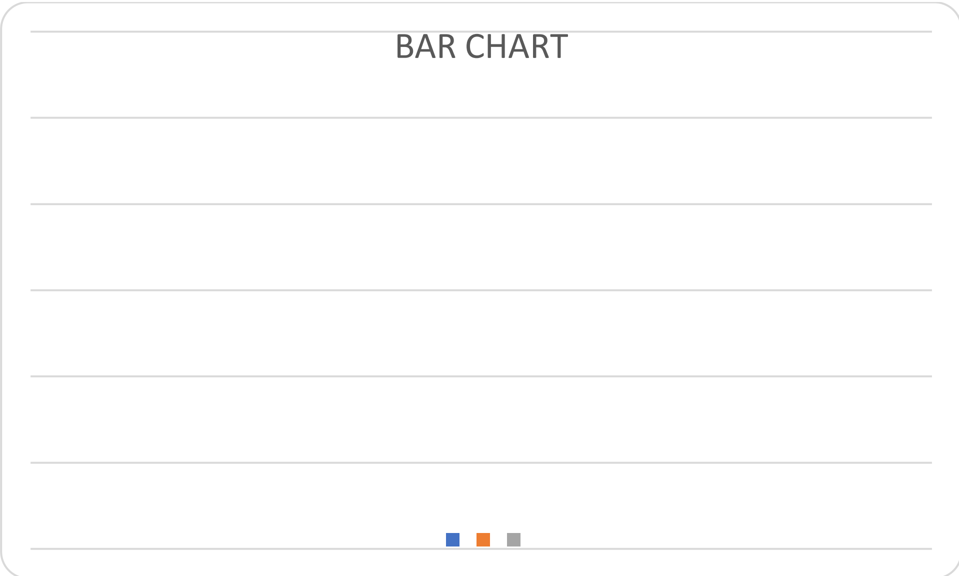
$P(X \cup Y) = P(X) + P(Y) - P(X \cap Y) = 0.8125$

Therefore, $P(X|X \cup Y) = \frac{0.75}{0.8125} = 0.9230$

SOLUTION FOUR

a)

i) Bar chart



ii) Total number for the year 2020 is $= 290 + 160 + 240 = 690$

iii) Pecerntage $= \frac{(280+160+310)}{2130} \times 100 = 35.2\%$

b) Frequency table

Class i	limits	Mid-Point x	Frequency n_i	CF	nx	$n(x-\overline{x})^2$
1	0 – 10	5	40	40	200	9000
2	10 – 20	15	60	100	900	6000
3	20 – 30	25	70	170	1750	1750
4	30 – 40	35	30	200	1050	6750
					3900	23500

i) $mean = \frac{1}{n}\sum nx = \frac{1}{200} \times 3900 = 20$

ii) Standard deviation

Root of

$\frac{1}{n-1}\sum n(x-\overline{x})^2 = \frac{1}{200-1}$**(23500) = 118**

$= \sqrt{118} = 10.87$

iii) $$\mathbf{Md}=l_k+\frac{w}{n_k}\left(\frac{n}{2}-CF_{k-1}\right)$$ **k=2**

$$=10+\frac{10}{60}\left(\frac{200}{2}-40\right)$$

$$=10+10$$

$$=20$$

SOLUTION FIVE

(a)

(i)

x	y	xy	x^2	y^2
1	110	110	1	12 100
2	132	264	4	17 424
3	150	450	9	22 500
4	176	704	16	30 976
5	194	970	25	37 636
$\sum x = 15$	$\sum y = 762$	$\sum xy = 2\,498$	$\sum x^2 = 55$	$\sum y^2 = 120\,636$

$$b = \frac{5(2498) - (15)(762)}{(5)(55) - (15)^2} = \frac{212}{10} = 21.2$$

$$a = 152.4 - 63.6 = 88.8$$

Therefore, $\hat{y} = 88.8 + 21.2x$

(ii)

Quarter 6 , $x = 6$, $\hat{y} = 88.8 + 21.2(6) = 216$

Quarter 7, $x = 7$, $\hat{y} = 88.8 + 21.2(7) = 237.2$

SOLUTION SIX

(a) $\mu = 5,$ $\sigma = \sqrt{0.04} = 0.02$

$P(X < 4.5)\ or\ P(X > 5.4)$

$P(Z < \frac{4.5-5.0}{0.2})\ or\ P\left(Z > \frac{5.4-5.0}{0.2}\right) = P(Z < -2.5) or\ P(Z > 2)$

$= 0.5 - 0.5062 + 0.5 - 0.4772 = 0.0166$

Proportion of acceptable bolts $P(-2.5 < Z < 2) = 1 - 0.0166 = 0.9834$.

(b) (I)

For Mutono

Sample mean $\bar{x} = \frac{408}{10} \approx 40.8$

Sample Standard deviation $S = \sqrt{\frac{20182-\frac{(408)^2}{10}}{9}} \approx \sqrt{392.8444} = 19.82$

Coefficient of variation $CV_A = \frac{S}{\bar{x}} \times 100 = \frac{19.82}{40.8} \times 100 = 48.58\%$

For Kalenga

Sample mean $\bar{x} = \frac{540}{10} = 54$

Sample Standard deviation $S = \sqrt{\frac{35088-\frac{(540)^2}{10}}{9}} \approx \sqrt{658.666} = 25.66$

Coefficient of variation $CV_A = \frac{S}{\bar{x}} \times 100 = \frac{25.66}{54} \times 100 = 47.53\%$

(ii) Kalenga is more intelligent and consistent than Mutono since the mean score for Kalenga 54 is greater than that of Mutono 40.8 and also the coefficient of variation is smaller for Kalenga 47.53% compared to that of Mutono 48.58%.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA CERTIFICATE IN ACCOUNTANCY

CA 1.3: BUSINESS ECONOMICS

TUESDAY 13 SEPTEMBER 2022

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

INSTRUCTIONS TO CANDIDATES

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

2. This paper is divided into TWO (2) sections:
   Section A: Ten (10) compulsory multiple choice questions.
   Section B: 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 Total profits are maximized where…………………………………..

A. Total revenue equals total cost
B. The total revenue curve and the total cost curves are parallel
C. The total revenue curve and the total cost curves are parallel and total cost exceeds total revenue
D. The total revenue curve and the total cost curve are parallel and total revenue exceeds total cost

(2 marks)

1.2 If the income elasticity of demand for good is less than 1, the good is ……….

A. A necessity
B. Luxury
C. An inferior good
D. A non-related good (2 marks)

1.3 The type of tax where the same rate applies to all tax payers is called………

A. Progressive
B. Proportional
C. Regressive
D. Digressive

(2 marks)

1.4 Which of the following statements most accurately describes merit goods?

A. They will not be provided by the private sector
B. They are non-excludable and non-exhaustive
C. They are under-provided by the private sector
D. They are provided free of charge

(2 marks)

1.5 Which one of the following is NOT a method a firm can use to finance its long term investments?

A. Bank overdraft
B. Retained profits
C. Bank loan
D. Issue of new shares

(2 marks)

1.6 Which of the following is NOT a barrier to international trade?

A. Exchange controls
B. Tariffs
C. Quotas
D. Value added tax

(2 marks)

1.7 When inflation is too high, which of the following is an appropriate fiscal policy?

A. Increased taxes
B. Decreased taxes
C. increased spending
D. Reduced lending rates

(2 marks)

1.8 Which of the following is a characteristic of an oligopoly?

A. A kinked supply curve
B. No product differentiation
C. Existence of many firms
D. Strategic competition

(2 marks)

1.9 Which of the following is consistent with market failure?

A. When a producer bears all the costs
B. When the buyer benefits from what they pay for
C. When society's cost is equal to private cost
D. When the cost to society is greater than private cost

(2 marks)

1.10 Which one of the following changes produces a leftward shift in the investment demand curve?

A. A wave of optimism about future profitability
B. Technological change
C. Increase in business taxes
D. High plant capacity utilization

(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)

A price ceiling is a legal maximum on the price at which a good can be sold. Examples of price ceilings include rent control, price controls on gasoline in the 1970s, and price ceilings on water during a drought. A price floor is a legal minimum on the price at which a good can be sold. Examples of price floors include the minimum wage and farm-support prices. One crop which usually attracts price floor is cotton. A price floor may be set to try and protect cotton farmers from any potential losses. A price ceiling leads to a shortage, if the ceiling is binding, because suppliers won't produce enough goods to meet demand unless the price is allowed to rise above the ceiling. A price floor leads to a surplus, if the floor is binding, because suppliers produce more goods than are demanded unless the price is allowed to fall below the floor.

Required:

(a) Distinguish between price floor and price ceiling. (2 marks)

(b) Suppose the market for cotton is characterized by the market demand and supply equations of $P = 100 – Q/100$ and $P = Q/100$, respectively.

- (i) Find the equilibrium price and quantity. (3 marks)
- (ii) Suppose cotton farmers lobby the government to impose a price floor of K60 per unit, with the government purchasing any surplus to ensure the price is achieved. How many units do consumers purchase? (2 marks)
- (iii) Suppose it costs K10 per unit to store cotton, what is the total cost to the government? (3 marks)

(c) Distinguish, with the use of diagrams, between change in supply and change in quantity supplied. (10 marks)

[Total: 20 Marks]

<u>QUESTION THREE</u>

An Economist working for Ministry of Finance and National Development and earning K300, 000 per year is considering setting up his own research consultancy firm. He estimates that renting an office would cost K50,000 per year, hiring a secretary would cost K65,000 per year, renting the required office equipment would cost K45,000 per year, and purchasing the required supplies, electricity, telephone and others bills would cost an additional K23,500. The economist estimated that his total revenues for the year would be K512,250, and he is indifferent between keeping his present job and opening his own consultancy firm.

Required:

(a) Define and calculate how much would be the explicit costs of running his own consultancy firm for the year? (4 marks)

(b) Define and calculate the implicit costs of holding on to the job as an economist. (4 marks)

(c) Find the economic costs of retaining on to the job as an economist. (3 marks)

(d) Calculate the economic profit. (3 marks)

(e) How much will the accounting profit be for retaining the job as an economist? (3 marks)

(f) Analyse the disparity or non-disparity in the calculated values of the economic and accounting profits? (3 marks)

[Total: 20 Marks]

QUESTION FOUR

In a mixed economy the government and private sector jointly solve economic problems. The government influences decisions through taxation, subsidies, and provision of free services such as defence and security. It also regulates the extent to which individuals may pursue their own self-interest. Most countries are mixed economies, though some are close to command economies while others are much nearer to free market economy.Efficient allocation of resources, is one key issue in most economies. Resource allocation arises as an issue because the resources of a society are in limited supply, whereas human wants are usually unlimited.

Required:

(a) Describe the four (4) factors of production (8 marks)

(b) Explain any four (4) ways of allocating resources (factors of production) in a mixed economy. (8 marks)

(c) Give any two (2) reasons governments regulate the functioning of markets. (4 marks)

[Total: 20 Marks]

QUESTION FIVE

Macroeconomics is the study of the overall economy. Macroeconomics deals with the aggregate economy. The history of macroeconomics is traced back to indelible hardships and depressed economic condition of the 1930s called the great Depression. In 1936 John Maynard Keynes published his 'The General Theory of Employment, Interest, and Prices' with his emphasis on understanding the forces influencing aggregate economies. Many government policies and programs that we take for granted today grew out of the experience of 1930s.

You are given the following information about a closed economy:
Y = C + I + G
C = 80 + 0.65(Y – T)
I = 100
G = 500
Where: Y refer to national income, and where C, I, and G refer, respectively, to consumption, investment and government expenditure. Y - T refers to disposable income, and the tax (T) in this economy is 20.

Required:

(a) Calculate the equilibrium level of national income (6 marks)

(b) Calculate the multiplier for this economy (4 marks)

(c) You are asked to give advice to a businessman who is thinking of investing in this economy. Explain why you would recommend investment if government expenditure were to increase to 1000 (6 marks)

(d) Explain the term 'equilibrium GNP) (4 marks)

[Total: 20 Marks]

QUESTION SIX

The decade between 1960 and 1970 was a golden age of low unemployment, rapid growth and low inflation. In the early 1970s, with the world economy booming, OPEC quadrupled the price of oil. The rest of the 1970s saw high inflation, low growth and rising unemployment and after another oil price hike in 1979-80, the 1980s were another tough period. The longer the period of economic success lasted (during 1991-2008 -steady growth, low unemployment, low inflation) -the more confident people became that successful economic policies had finally been discovered. Confidence bred overconfidence, spiralling house prices and rash lending by banks. In 2009 the crash finally came. the government's recent attempt to offset the recession and save the banking system has hugely increased both government debt and its budget deficit (Source: Berg et al, 2009)

Required:

(a) Define the macroeconomic objective of full employment of labour (3 marks)

(b) Explain why there would still be unemployment even if the objective mentioned in (a) above has been met. (3 marks)

(c) Describe the characteristics of recession and boom periods of the business cycle.

(6 marks)

(d) Explain how the following can be used to off-set a recession:

(i) Fiscal policy (4 marks)

(ii) Monetary policy (4 marks)

[Total: 20 Marks]

END OF PAPER

CA1.3 BUSINESS ECONOMICS SUGGESTED SOLUTIONS

SOLUTION ONE

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

SOLUTION TWO

a)

- A **price ceiling** is a government-imposed limit on how high a price is charged for a product. Governments intend price ceilings to protect consumers from conditions that could make necessary commodities unattainable.An effective price ceiling is positioned below the equilibrium price
- A **price floor** is a government- or group-imposed limit on how low a price can be charged for a product. A price floor exists when the price is artificially held above the equilibrium price and is not allowed to fall. A price floor must be greater than the equilibrium price in order to be effective.

b)

i) P = 100 – Q/100 and P = Q/100, equate the two to solve for equilibrium quantity:

100 – Q/100 = Q/100, 100 = Q/100+Q/100

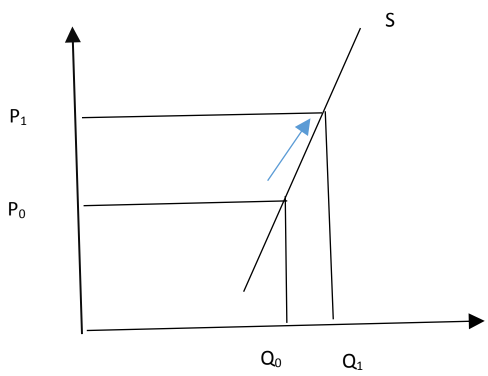
Q* = 5000 and P * = K50.

ii) At price P = 60, consumers are only willing to buy only **Q = 4,000** solved from 60 = 100 – Q/100. Suppliers are willing to sell 6000 units (P=Q/100). This gives a surplus of 2000 units.

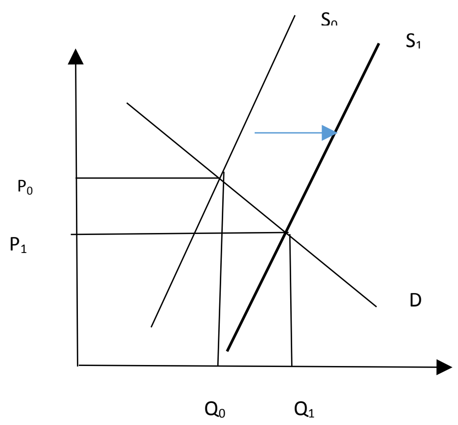
iii) At P = 60, there will be an excess of 2,000 units (difference between what the consumers and the suppliers are willing to trade).

Government must buy surplus of 2,000 units at K60 each, and storage cost of K10 per unit makes the government expenditure (K60 + K10) x 2,000 = **K140,000.**

c)



Change in quantity supplied



Change in supply

Change in quantity supplied

- Change in quantity supplied means when more is supplied at a higher price (expansion) or when less is supplied at a lower price (contraction). It leads to an upward or downward movement along the supply curve.
- It is caused due to a change in the own price of the commodity, other factor affecting supply are held constant.

Change in supply

- Change in supply means more is supplied at the same price (increase) or less is supplied at the same price (decrease).
- It leads to a rightward or leftward shift of the supply curve.
- It is caused due to a change in other factors affecting supply and not a change in the own price of the commodity.

SOLUTION THREE

a. Explicit cost are costs that are directly incurred in the process of production

$Explicit\ Cost = Rent + Wages + Cost\ of\ Equipment\ + Utility\ Bills$

$Explicit\ Cost = 50{,}000 + 65{,}000 + 45{,}000\ + 23{,}500$

$Explicit\ Cost = 183{,}500$

b. Implicit costs are simply indirect costs or opportunity costs incurred as a consequence of making a decision in this case is the forgone revenue of the research consultancy firm the economist did not pursue (K512, 250).

c. $Economic\ \ Cost = Direct\ Cost + Implicit\ Costs$

$Economic\ \ Cost = K183{,}500 + K512{,}250$

$Economic\ \ Cost = K183{,}500 + K512{,}250$

$Economic\ \ Cost = K695{,}750$

d. $Economic\ \ \pi = TR - Economic\, costs$

$Economic\ \ \pi = 512{,}250 -\ \ K695{,}750$

$Economic\ \ \pi = (K183{,}500)$

e. $Accounting\ \ \pi = TR - Explicit\ costs$

$Accounting\ \ \pi = K512{,}250 - K183{,}500$

$Accounting\ \ \pi = K328{,}750$

f. $Accounting\ \ \pi = K328{,}750 > Economic\, \pi = (K183{,}500)$ This variance in the values of the calculated profits is that economic profit incorporates opportunity costs.

SOLUTION FOUR

a) Factors of Production

- **Land** is the economic resource encompassing natural resources found within a nation. This resource includes timber, land, fisheries, farms and other similar natural resources. Land is usually a limited resource for many economies.
- **Labor** represents the human capital available to transform raw resources into consumer goods. Human capital includes all able-bodied individuals capable of working in the economy and providing various services to other individuals or businesses.
- **Capital** has two economic definitions as a factor of production. Capital can represent the monetary resources companies use to purchase natural resources, land and other capital goods. Capital also represents the major physical assets individuals and companies use when producing goods or services. These assets include buildings, production facilities, equipment, vehicles and other similar items.
- **Entrepreneurship** is considered a factor of production because economic resources can exist in an economy and not be transformed into consumer goods. Entrepreneurs usually have an idea for creating a valuable good or service and assume the risk involved with transforming economic resources into consumer products.

b) Mixed economies allocation of resources

- In a mixed economy both market forces and government decisions determine which goods and services are produced and how they are distributed.
- It reflects the fact that both market and government participation is required in the allocation of resources, as both systems have disadvantages which are corrected by the other.
- Mixed economies may have a distinct private sector, where resources are allocated primarily by market forces, such as the grocery, and they may also have a distinct public sector, where resources are allocated mainly by government, such as defence, police, and fire services.
- In many sectors, resources are allocated by a combination of markets and panning, such as healthcare and, which have both public and private provision.

c) Reasons for Regulation of markets

- To address market failures where true costs and benefits are not reflected correctly in market prices;
- To reduce entry barriers, "level the playing field," encourage greater competition and innovation, and combat short-sightedness—all to increase economic growth;
- To raise barriers to entry or create state monopolies where its necessary, to ensure efficient use of resources, as well as protect citizens from possible exploitation; and
- To ensure consumer, worker and investor safety, transparency in information about products and services, and a fair distribution of net benefits. This category is often labeled "social regulation," but these policies also have economic justifications and implications.

SOLUTION FIVE

a) The level of national income is:
$Y = C + I + G$
But $C = 80 + 0.65(Y – T)$
$Y = 80 + 0.65 (Y – 20) + 100 + 500$
$Y = 80 + 0.65Y - 13 + 100 + 500$
$Y – 0.65Y = 80 – 13 + 100 + 500$
$Y(1 – 0.65) = 667$
Y = K**1, 905.71**

b) The multiplier, K is defined as: K = 1/1 – MPC = 1/1 – 0.65 = **2.86**
c) Recalculating part (a) with G = 1000, yields, **K3,334.29.** The key point here is that the increase in G will bring about a multiplied increase in national income which will mean buoyant sales and prices. In these circumstances, the businessman should be encouraged to invest
d) Equilibrium GNP is the rate of output at which the rate of desired expenditure(aggregate demand) is equal to the rate of production(aggregate supply)

SOLUTION SIX

a) Full employment

- Full employment implies the macro economy is operating at its full capacity and there is no output gap or demand deficient unemployment.
- Full employment designates high output and efficient production.
- The main reason for targeting full employment is because high unemployment has various social and economic costs. Firstly, the unemployed will have low income enabling low levels consumption. This low income will lead to relative poverty. Also, the unemployed may become de-motivated and de-skilled.
- Also, during periods of high unemployment, the government will have to spend more on unemployment benefits and also the government will receive lower tax revenues (less VAT, lower income tax).

b) In practice, there will always be some frictional unemployment as people are looking for new jobs or leaving school. In addition, there are always those that will be voluntarily unemployed.

c) The economy tends to experience different trends. These can be categorised as the trade cycle and may feature boom, slump, recession and recovery

- **BOOM:** A period of fast economic growth. Output is high due to increased demand, unemployment is low. Business confidence may be high leading to increased investment. Consumer confidence may lead to extra spending.
- **RECESSION:** A period where economic growth slows down and the level of output may actually decrease. Unemployment is likely to increase. Firms may lose confidence and reduce investment. Individuals may save rather than spend.

d)

i) **Monetary policy** is the process by which the monetary authority of a country controls the supply of money, often targeting a rate of interest for the purpose of promoting economic growth and stability The official goals usually include relatively stable prices and low unemployment.

Expansionary policy increases the total supply of money in the economy more rapidly than usual,. Expansionary policy is traditionally used to try to combat unemployment in a recession by lowering interest rates in the hope that easy credit will entice businesses into expanding.

ii) **Fiscal policy** refers to the use of government spending and tax policies to influence economic conditions, especially macroeconomic conditions, including aggregate demand for goods and services, employment, inflation, and economic growth.

If an economy is experiencing a recession, the government might issue tax stimulus rebates to increase aggregate demand and fuel economic growth.

The logic behind this approach is that when people pay lower taxes, they have more money to spend or invest, which fuels higher demand. That demand leads firms to hire more, decreasing unemployment, and causing fierce competition for labor. In turn, this serves to raise wages and provide consumers with more income to spend and invest.

Government expenditure on public works or projects such as road construction, dam and generally infrastructural development are aimed at stimulating aggregate demand (AD).

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CERTIFICATE IN ACCOUNTANCY

CA 1.4: COMMERCIAL AND CORPORATE LAW

FRIDAY 16 SEPTEMBER 2022

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 Which of the following is not a mode of winding up a company?

A. Compulsory winding up

B. Creditors' winding up

C. Members' winding up

D. PACRA Registrar's winding up

(2 marks)

1.2 Which one is not a source of law?

A. The Constitution of Zambia

B. Precedents

C. Books of authority

D. Obiter dictum

(2 marks)

1.3 Advertisement in the law of contract is generally….

A. An offer

B. An acceptance

C. An invitation to treat

D. An advertisement

(2 marks)

1.4 Which of the following is a right of an unpaid seller in respect of the goods which have become a property of the buyer?

A. A lien on the goods

B. Caveat

C. Injunction

D. None of the above

(2 marks)

1.5 Vicarious Liability is where……………………

A. The employer is directly liable for the acts or omissions of the employee

B. Contract of service is executed fully by the employer

C. Contract of employment is terminated by the court

D. Master and servant relationship binds both parties.

(2 marks)

1.6 ……………is an agent who acts without authority to preserve the property or interest of the principal.

A. Agent of necessity

B. Agent with apparent authority

C. Agent by ratification

D. Agent by estoppel

(2 marks)

1.7 A Debenture is …………………….

A. Share capital

B. Loan capital

C. Share subscription

D. Equity capital

(2 marks)

1.8 A promoter is……………………..

A. One who forms a company

B. One who advertises a company

C. One who recommends for promotion at work

D. One who works hard for the company.

(2 marks)

1.9 Which one is **not** a distinction between partnerships and limited liability companies?

A. A limited liability company can own assets in its name whereas a partnership cannot.

B. A limited liability company can be dissolved upon the death of a shareholder where as a partnership cannot.

C. A limited liability company can sue and be sued in its own name where as a partnership cannot.

D. A limited liability company (if publicly listed) can have its accounts published in public media where as a partnership is not.

(2 marks)

1.10 Which of the following defines a contract?

A. Specific performance by the offeror

B. An agreement between two or more parties with the intention that it will be binding on them.

C. Restitution of both parties

D. An award of damages to a party in litigation.

(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)

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

Mazembe Farms Ltd is a large scale farming company growing among other things maize and sunflower. In it's over fifty (50) years of existence, this year it has faced the most serious competition from the new and highly industrialized farms. Mazembe Farms Ltd is thinking of winding up and has decided through a special resolution to alter and reduce its share capital.

The company's creditorshave heard of Mazembe Farms Ltd's decision to reducethe share capital. The creditors have decided to appoint a liquidator, but are not sure of the powers of of a liquidator. It has been noted that the winding up of the farming activities by Mazembe Farms Ltd may lead to several redundancies.

Required:

(a) Describe the procedure for reduction of share capital by a company like Mazembe Farms Ltd. (8 marks)

(b) Explain to the creditors the powers of a liquidator. (6 marks)

(c) Explain to the workers the meaning of the terms :

(i) Redundancy (3 marks)
(ii) Redundancy payment (3 marks)

[Total: 20 Marks]

<u>QUESTION THREE</u>

Chisepo works as a truck driver for Mukanda Transport and Logistics limited. He transports various goods across the country for different clients. He is on a fixed monthly salary and, when he is not transporting goods, he is required to report for work at 9:00 AM. The company engaged him to transport goods to Kitwe from Lusaka. It is company policy not to carry unauthorized passengers in the trucks whenever on duty. On his way to Kitwe, he decided to stop by in Kapiri Mposhi to meet up a friend. The friend lived about 5 kilometers from the main road. After about an hours' visitation, he set off on his journey. Before reaching the main road however, he hit into a vehicle carrying vegetables to the market. The vegetables are destroyed and the vehicle carrying them has suffered extensive damage at the rear. Mboshi the owner of the vehicle carrying the vegetables on inquiry from Chisepo discovers that Chisepo was just employed as a driver and did not own the truck. Mboshi does not believe Chisepo can meet the compensation for the damage caused to his vehicle and the vegetables. He wants to be guided on how to proceed. Advise him on the following.

Required:

(a) With reference to the above scenario, explain the elements of negligence. (6 marks)

(b) Explain what elements should be established for Mukanda transport to be vicariously liable. (8 marks)

(c) Discuss the elements to be established for the existence of a master servant relationship. (6 marks)

[Total: 20 Marks]

QUESTION FOUR

(a) A contract may come to an end with the parties discharged from their contractual obligations in four (4) main ways, namely: Performance; Agreement; Frustration and Breach. Discuss the types of performance as a way through which a contract may be discharged. (10 marks)

(b) Explain the difference between an implied warranty and implied condition in a contract of sale. (5 marks)

(c) The driver of a petrol tanker was engaged in transferring petrol to an underground tank when he lit a cigarette and threw a match stick to the floor. This caused a fire and an explosion which did great damage. The question which arose was as to "who was to be held liable"?

Required:

With reference to the above scenario and using the rules of employment law, advise as to who will be liable. (5 marks)

[Total: 20 Marks]

QUESTION FIVE

(a) Define employment law. (2 marks)

(b) Write notes on the following determinants of a contract of service:

(i) Master's power to select his servant (1 mark)

(ii) The payment of wages (1 mark)

(iii) Master's right to control method of doing work (1 mark)

(iv) Master's rights of suspension or dismissal. (1 mark)

(v) Explain what vicarious liability entails. (4 marks)

(c) Distinguish between unfair and wrongful dismissal. (5 marks)

(d) Making reference to decided cases, explain what a contract for services is. (5 marks)

[Total: 20 Marks]

QUESTION SIX

(a) State the meaning of:

(i) Sole trader (1 mark)

(ii) Partnership (1 mark)

(iii) Company (1 mark)

(b) Explain at least 2 (two) rights and 2 (two) duties of a partner in a partnership.

(4 marks)

(c) Discuss the effect of incorporation a limited company. (3marks)

(d) Explain the powers Directors have in a company (4marks)

(e) Explain the process of compulsory winding up at law. (6 marks)

[Total:20Marks]

END OF PAPER

CA 1.4 COMMERCIAL AND CORPORATE LAW SUGGESTED SOLUTIONS

SOLUTION ONE

1.1. D

1.2. D

1.3. C

1.4. A

1.5. A

1.6. A

1.7. B

1.8. A

1.9. B

1.10. B

SOLUTION TWO

(a) The following is a procedure for reducing the company's share capital:-

(i) The company must pass a special resolution to reduce share capital.

(ii) It shall, within twenty – one days after making such a resolution, apply to the court for an order to confirm the reduction.

(iii) Once the order is done, the reduction on share capital held by shareholders will be effected.

(iv) The creditors are given a chance to object to the reduction, if any, as reduction of share capital reduces creditor's security and company's ability to pay their debt.

(v) The court hears the creditors' claims and if a creditor does not consent to the reduction, the court may order that the company pays the creditor the amount due to him or any amount the court considers enough to settle the debt.

(vi) The creditors who consent to the reduction sign a consent form/letter to the effect that they are not objecting. The company may either pay them off or simply ensure that the creditor's debt is secured. Once this is done, the company's reduction in share capital will be effected.

(b) The powers of a liquidator that the creditors will appoint will be as follows:-

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

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

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

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

(c) (i) *Redundancy* means termination of employment/being laid off because the employer's (Mazembe Farms Ltd's) business has gone down, is ceasing operations, no longer needs the particular employees, is restructuring or trying to serve costs so that the business can remain viable.

(ii) *Redundancy payment*:- This is the separation package or payment made to an employee whose contract has been terminated by way of redundancy.

SOLUTION THREE

(a) Negligence involves a wrongful act or omission by the defendant which is in breach of a duty of care and tends to cause damage to the plaintiff. Negligence arises accidentally without intention on the part of the tortfeasor to do the act or bring about the out of the act. There are mainly three elements that ought to be established for a claim of negligence to be made up that is, duty, breach and damage.

-duty is the obligation imposed on persons by law to ensure ones actions or omissions do not in fact cause any harm to others. This duty is primarily fixed by law hence, there is no need for there to be any prior relationship between the plaintiff and the defendant for the defendant to be held liable for his/her wrongful action or omission. The neighbor principle established in *Donoghue v Stevenson* [1932] 1 AC brings everyone within the scope of liability to our neighbours, which all those we may have in contemplation as being so affected by our actions or omissions so that we take care not to cause injury to the.

- breach is the act of doing something contrary to the obligation imposed on us by law. Where therefore a person does an act or omission which a reasonable person would not do, they are then said to be I breach of their duty of care. For instance as in the case of *Michael Chilufya Sata v Zambia Bottlers* (2004), where it was alleged that a dead cockroach was found in a bottle of sprite purchased by the plaintiff, the presence of the dead cockroach is indicative of the breach of duty of care. Where an act is so manifest in its revelation of a thing said to be in breach, it is said that a *res ipsa loquitor* case exists and in such cases, there would be no need for evidence to show that indeed there was a breach of duty of care.

- damage is the injury suffered by the plaintiff arising from the breach of duty of care. Damage is very important as without it, a claim for negligence cannot be made. As negligence is concerned with restitution, there is need for the claimant to show evidence of the damage suffered for which they wish to be compensated. Damage therefore triggers the award of damages.

(b) For vicarious liability to successfully be pleaded, the plaintiff ought to establish three elements being:

- existence of a master servant relationship between the wrongdoer and the one vicariously liable,
- the wrongful act being done in the course of employment and
- the wrongdoer not having been on a frolic of his own.

In the case at hand therefore, for Mboshi to successfully get compensation from Mukanda vicariously for the negligence of Chisepo, he has to prove that there was a relationship of master and servant existing between Mukanda and Chisepo. Mboshi will further have to prove that at the time Chisepo caused the accident, he did that while in the course of doing the job engaged to do by Mukanda transport. Lastly, Mboshi would have to prove that Chisepo was not on a frolic of his own but was doing just what he was expected to do by his master.

(c) The test for establishing the existence of a master servant relationship was set in Ready Mix Concrete (South East) Ltd v Minister of Pensions [1968] as being:

- The servant agrees that in consideration of a service for his master, a wage/salary shall be paid.
- The servant agrees either expressly or impliedly that in the performance of his/her work, he shall be subject to a significant degree to the control of the master.
- The provisions of the contract are consistent with its being a contract of service rather than for services.

SOLUTION FOUR

(a) The general rule is that parties must carry out precisely what they agreed under the contract. If one of the parties does less than, or different from that which he agreed to do, he is not discharged from the contract and cannot sue under the contract. Performance is one of the ways trough which a contract is discharged. Once a contract is discharged it means that both parties are relieved from their obligations. The following are the types of performance:

- **Partial performance:** If one of the parties only partially carries out his side of the contract, but the other party exercising a genuine choice, accepts the benefit of the partial performance, the court will infer a promise to pay for the benefit received. **Cutter v Powell (1795)**, Cutter agreed to serve on a ship sailing from Jamaica to Liverpool. The ship sailed on 2nd August, arriving in Liverpool on 9th October but Cutter died at sea on 20 September. **Held:** His widow could not recover anything for the work done before he died. Cutter was obliged to complete the voyage before he was entitled to payment. However, the parties may agree otherwise then a party can accept partial performance and payment can be made.
- **Substantial performance:** Substantial performance entails that a party has performed three quarters of the work or the work has been completed, but with a few defects. If the court decides thatthe plaintiffhas substantially carried out the terms of the contract, the plaintiff may recover for the work he or she has done. The defendants may counter claim for any defects in the performance. **Hoeing v Isaacs (1952),** the plaintiff agreed to decorate the defendant's flat and fit a bookcase and wardrobe for E 750. On completion of the work, the defendant paid E400 but he complained about faulty workmanship and refused to pay the balance of E350. **Held:** The court held that the contract had been substantially performed. The plaintiff was entitled to the outstanding E350, less the cost of remedying defects which was estimated at E55 18s 2c.

(b) An implied condition in a contract is that which is not stated or written but it may be implied by fact or deed. Breach of a condition leads to termination of a contract and/or claim for damages because it is a fundamental term of a contract, while an implied warranty is a written term for the assurances whether written or oral that a product is fit for the purpose intended and is merchantable i.e. it conforms to an ordinary buyer's expectations. Breach of a warranty only entitles the innocent party to damages because it is not a fundamental.

(c) This scenario borders on vicarious liability which simply means that the employer will be liable for the wrongful acts committed by his employees during the course of employment. This may include acts outside contractual duties, unauthorised ways of performing contractual duties and acts forbidden by the employer. In the case of **Century Insurance Co v Northern Ireland Road Transport Board (1942)**, the driver of a petrol tanker was engaged in transferring petrol to an underground tank when he lit a cigarette and threw a match to the floor. This caused a fire and an explosion which did great damage**. Held:** The employer was liable for the driver's negligence. In the same way, the employer in this case will be liable as the driver was performing his contractual duties, thus the doctrine of vicarious liability will apply.

SOLUTION FIVE

(a) Employment law is a branch private law that regulates labour relations in a country. It defines the rights and obligations that parties to labour relations have towards each other that is, the employers and employees. Employment law comes mainly from statutes which currently in Zambia, is the Employment Code Act of 2019 and the Industrial and Labour Relations Act Cap 269.

(b) Write notes on the following determinants of a contract of service:

(i) Master's power to select his servant – this is test used by the court in determining whether a person is an employee or an independent contractor. The master has a right to choose who they wish to engage as their employee. An independent contractor on the other hand engages with the employer on a contract for services which after completion of the services rendered, the relationship ends.

(ii) The payment of wages – this is one of the tests for determining whether a person is an employee or an independent contractor. A wage or salary would be determined by the employer paid to an employee in consideration of the work done for the employer.

(iii) Master's right to control method of doing work – In a contract of service where the relationship of master and servant exist, the master instructs how his servants perform the work the master has engaged them for. In a contract for services, the employee is an independent contractor and determines how they perform their work.

(iv) Master's rights of suspension or dismissal – Another test for determining whether one is an independent contractor or a servant, is whether the master exercises a power to suspend or dismiss the employee from the place of work. A master cannot suspend or dismiss someone engaged as an independent contractor.

(v) Explain what vicarious liability is and how it arises. - Vicarious liability is one that arises where one commits a tort yet another is held liable for the tort committed by the other. Vicarious liability mainly arises where there is in existence a relation of master and servant between the person committing the tort and the person to be liable for the tort committed. *Ready Mix Concrete v Minister of Pensions* [1968] 2 QB 497. Once established that the relationship of master and servant existed between the tortfeasor and the employer, the court further has to consider whether the servant was acting on behalf of the master when he committed the tort. If the servant was on a frolic of his/her own, the court would not find the employer vicariously liable for the tort committed. *Storey v Ashton* [1868] LR 4 QB 476.

(c) Distinguish between unfair and wrongful dismissal – Unfair dismissal borders on dismissal that would be brought about by a number of factors to construe it unfair. For example dismissal based on gender, being differently abled or sexual orientation in societies where different sexual orientations have been recognized, would amount to unfair dismissal. Section 108 of the Industrial and Labour Relations Act Cap 269 makes provisions to prohibit conduct that would amount to unfair dismissal. Conversely, wrongful dismissal is dismissal that is wrongly done *vis* procedures provided at the work place for the dismissal of employees. Where therefore code of conduct and conditions of service for employees has stipulated the procedures to be followed when the need to relieve an employee from employment arise, a failure to follow the procedure shall amount to wrongful dismissal. In Contract *Haulage Limited v Mumbuwa Kamayoyo* (1982) the court ruled that a failure to give one month's notice of termination of contract contrary to the provisions of statute was wrongful dismissal and the claimant was entitled to one month's salary in lieu of notice.

(d) Making reference to decided cases, explain what a contract for services is. A contract for services is one that exists between an employer in the same of employment law and an independent contractor. A person who is not engaged as an employee that is not the servant of the employer is considered to be engaged on a contract for services. There are tests that have been developed by the courts to determine the sort of relationship that would exist between and employer and an employee especially where issues of vicarious liability arise. The test for establishing a contract for services was elucidated in *Ready Mix Concrete Ltd v Minister of Pensions* [1968] as being: (i) the employer does not determine the wage of the employee, (ii) the employee is not subject to the control of the employer in performance of his/her work and; (iii) the contract between them does not suggest that there exist a master servant relationship.

SOLUTION SIX

(a) Write notes on the following:

(i) Sole trader- A sole trader is a kind of business entity started and run by one individual. The individual starting and running this entity makes all the decisions in the running of the business. They derive all the benefits of the business and are liable for all the wrongs committed by the business.

(ii) Partnership – A partnership is a business entity that is started by two or more people for currying on business in common with a purpose of making a profit. A partnership is always made of more than one person, the business to be carried on must be in common as the partners agreed and it should be for profit. If the three do not exist, it is not a partnership. In a partnership, the liabilities of the partnership are usually liabilities of the partners as well.

(iii) Company – A company is a business entity that is incorporated under the Companies Act either as a Private Company limited by shares or limited by guarantee. A company has the characteristics of being a separate legal entity from its sponsors meaning, the liabilities of the company do not extend to the sponsors of the company in the event of a winding up.

(b) The three duties and three rights of a partner in a partnership are:

(i) duty to render true accounts and full information
(ii) duty to account for private profits
(iii) duty to account for profits from competing business.
(iv) Rights are – right to share equally in the capital and profits of the partnership
(v) Right to be indemnified for personal costs incurred in conduct of business of partnership
(vi) Right to take part in the management of the company.

(c) Incorporation is a process of registering a business entity with the Patents and Companies Registration Agency (PACRA). The process of registration requires sponsors of the company to lodge specified forms together with the Articles of Association to the Registrar of Companies. The submission of the forms is preceded with a registration of a name by which the company shall be known and where there is no objection to the name, the name would be adopted and once the documentation submitted is processed, the Registrar of Companies will then issue of certificate of incorporation signifying the birth of the company. The effect of incorporation is that once registered and a certificate of incorporation is issued, the incorporated company assumes its own identity separate from the sponsors. The company can then sue and be sued in its own name and may even bring an action against its sponsors. Incorporation establishes what is known as separate legal personality in the company where the company becomes a person artificially. Incorporation therefore means that a company commits its own torts and crimes and not the sponsors of the company. The liabilities of the company are to be borne by the company itself and not the sponsors. The sponsors of the company may themselves be directly in charge of running the company but even so, their actions in running the company would not bring them within the scope of liability in the event of a debt the owed by the company. Incorporation of a company therefore ensures that there is perpetual succession in the company and avoid situations where the death of the sponsors may equally mean the death of the company. It is therefore advantageous to a country's economy to have incorporated entities than not. *Salomon v Salomon* [1896] UKHL 1 firmly established that creditors of an insolvent company could not sue the company's shareholders for payment of outstanding debts.

(d) A director is a person appointed to run the affairs of a company for and on behalf of the sponsors. Directors can be the sponsors of the company themselves or one independent of the company. In performing their functions, directors have the following powers as specified under the Companies Act:
(i) Power to manage the company
(ii) Unless the contrary provides, power to borrow money
(iii) Power to appoint an attorney
(iv) Power to sign cheques and other negotiable instrument.

(e) Compulsory winding up is winding up sanctioned by the court at the behest of the directors. Where a company shows incapacity to pay debts owed, directors may request the court to wind up the operations of the company to allow for the disposal of the company's assets and use the proceeds to liquidate the debt the company may owe or where the company fails to meet its statutory obligations. For a company to be compulsorily wound up, the following must be done:
(i) A special resolution must be passed that the company be wound up by the court
(ii) The company has not commenced its business within twelve months after its incorporation or has suspended its business for twelve months.
(iii) The company is unable to pay its debts.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA CERTIFICATE IN ACCOUNTANCY

CA 1.5: MANAGEMENT THEORY AND PRACTICE

MONDAY 12 SEPTEMBER 2022

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. Classical management thinkers'…………………………………………..

A. Utilize the "it all depends" approach

B. Utilize quantitative decision-making tools

C. Look for the one best way to do something

D. Realize that their most important and complex resource is people

(2 marks)

1.2 From the statements below. Which one does not accurately reflect the characteristics of Fred Fiedler model?

A. Managers must draw on all past theories in attempting to analyze and solve problems.

B. The best way to approach all management challenges is through scientific management.

C. Fred Fiedler model is integrative in nature.

D. Managers be flexible and consider the alternatives and fall back positions when defining and attacking problems.

(2 marks)

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

A. How the employees feel about working for the organization

B. How organizations share values, beliefs, habits, norms, philosophies, experiences, and behaviors.

C. What the company does best

D. A key concept that guides managers and their actions

(2 marks)

1.4. The uninterrupted line of relationships from the bottom to the top of an organization is called the ………………………..

A. Span of control

B. Unity of command

C. Division of labor

D. Chain of command

(2 marks)

1.5. ……………..has defined the basic problem of managing as the art of "knowing exactly what you want men to do and then see that they do it in the best and cheapest way"

A. Henry Fayol
B. F.W. Taylor
C. Mary Parker Follet
D. None of these

(2 marks)

1.6. Which of the following statements does not correctly characterize the difference between the formal and the informal organization?

A. In the formal organization, the formal organization authority comes from the position.

B. Informal power follows the chain of command, but authority does not.

C. Leverage in the informal organization is informal power that goes with the person.

D. Groups give power in the informal organization.

(2 marks)

1.7. ……………….is a process that allows people to make decisions based on their deeper values which will be economically, socially and environmentally sound.

A. Holistic approach

B. Ethics management

C. Code of conduct

D. None of these

(2 marks)

1.8. What is the classical view of management's social responsibility?

A. To create specific environment in work place

B. To maximize profits

C. To protect and improve society's welfare

D. All of the above

(2 marks)

1.9. If the orders, instructions or directions are delegated to a particular person, then it is known as:

A. General delegation

B. Specific delegation

C. Written delegation

D. Informal delegation

(2 marks)

1.10. Included within Behavioral Management theory is the idea of different types of Managers. Which type believes employees will not work to their potential without close supervision and most will avoid work if possible?

A. Theory X Managers

B. Theory Y Managers

C. Theory Z Managers

D. All of the Above

(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)

Mr. Obedi has been promoted as a Senior Manager in Audit section barely two (2) years after being employed. As a young ambitious man Obedi hopes to be Director one day. However, he cannot understand why most of his subordinates are avoiding him. He has just heard about how a leader must motivate the employees.

Required:

(a) Explain the difference between a Leader and a Manager. (4 marks)

(b) Use the Blake and Mouton managerial grid to explain the behavioral theory of leadership. (10 marks)

(c) Draw the Maslow hierarchy of needs and explain to Mr. Obedi each level starting with the lowest. (6 marks)

[Total: 20 Marks]

QUESTION THREE

Management is about the coordination and administration of tasks to achieve a goal. Such administrative activities include setting the organization's strategy and coordinating the efforts of staff to accomplish these objectives through the application of available. It also involves Simplification and Standardization of work.

Required:

(a) Explain the difference between Simplification and Standardization. (6 marks)

(b) Summarize the constituents of SWOT analysis model of company analysis. (8 marks)

(c) Demonstrate your knowledge of management and its application by defining the following terms: Authority, Responsibility, and Accountability. (6 marks)

[Total: 20 Marks]

QUESTION FOUR

(a) A Lecturer stated that 'Once plans are made and the organization is created, the focus shifts to the achievement of objectives'. This function is called by various names: directing, leading, motivating, actuating and so on. It basically involves directing or leading the activities of the people.

Required:

As a scholar in leading people, the manager performs, explain the following three (3) distinct tasks: communication, leadership and motivation. (6 marks)

(b) Discuss in short notes on Leading as a function of Management (4 marks)

(c) Planning and controlling are normally referred to as 'Siamese' twins of management, Explain how the two (2) functions are closely interrelated. (6 marks)

(d) State the four (4) main elements involved in planning and controlling. (4 marks)

[Total: 20 Marks]

QUESTION FIVE

(a) Define the characteristics of these public sector organizations: armed forces, Government departments, most schools and universities. (6 marks)

(b) What are the features of a public sector organization? (6 marks)

(c) What are the measures used for value for money in the public sector (6 marks)

(d) Define the connected shareholders. (2 marks)

[Total: 20 Marks]

QUESTION SIX

(a) Explain the importance of research and development in an organization. (5 marks)

(b) Explain why it is so important to consider these objectives of purchasing when buying goods and services (8 marks)

(c) Explain any seven (7) functions of the human resource management. (7 marks)

[Total: 20 Marks]

END OF PAPER

CA 1.5 MANAGEMENT THEORY AND PRACTICE SUGGESTED SOLUTIONS

SOLUTION ONE

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

SOLUTION TWO

a. Explain the difference between a Leader and a Manager

i. **Leader-** innovates, develops, focuses on people and inspires trust, and holds a long-term view. A leader does the right thing;

ii. **Manager-** administers and maintains, by focusing on systems and control and the short term view. A manager does things right

b. Use the Blake and Mouton's managerial grid to explain the behavioural theory of leadership.

Grid 1,1 **Impoverished:** this is where the leader exerts a minimum effort to accomplish the work; he is lazy and shows little interest either in work or staff

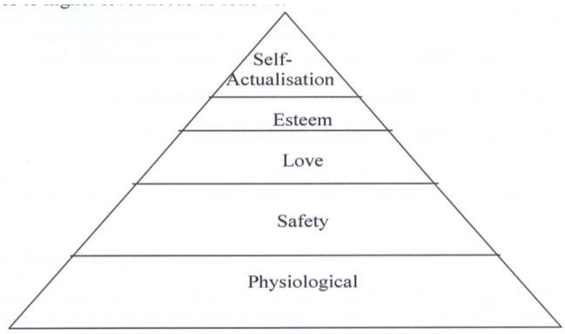
Grid 1,9 **Country Club.** The leader focuses on being supportive and considerate of subordinates and little concern for task efficiency and achieving results;

Grid 9,1 **Task.** The leader concentrates on task efficiency and results but shows little concern for the development and morale of subordinates;

Grid 5,5 **Middle of the road or the dampened pendulum.** The leader maintains adequate task efficiency and satisfactory morale though balancing or switching between;

Grid 9,9 **Team.** The leader facilitates task efficiency and high morale for coordinating and integrating work-related activities.

c. Draw the Maslow hierarchy of needs and explain to Mr Obedi each level starting with the lowest



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

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

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

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

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

Once a lower level need is satisfied, it no longer acts as a strong motivator but the higher level need becomes the motivator and so on. Thus a satisfied need is no longer a motivator.

SOLUTION THREE

a) Simplification and Standardization

Work Standardization refers to the process of setting standards for every business activity e.g., process, raw material, time, product, machinery, methods or working conditions. The objective of standardization are to reduce product to fixed types, sizes, features etc. To establish interchangeability of various parts. To establish standards of excellence and quality in materials. To establish standards of performance of men and machines.

Simplification aims at eliminating unnecessary diversity of products. It results in savings of cost of labour, machines and tools. It implies reduced inventories, fuller utilization of equipment and increasing turnover.

b) Constituents of the SWOT Analysis model.

i. Strengths
ii. Weaknesses
iii. Opportunities
iv. Threats

This model provides the organisations ways of analyzing it situation in its operating environment.

c) Definition of management terms:

i. **Authority** refers to the scope and amount of discretion given to a person to perform a certain task or make a decision. It may also be referred to as *the right to influence the behaviour of others*. The organisational structure shows the hierarchy and authority derived from the positions.

ii. **Responsibility** refers to the obligation to perform a particular task or the liability of a person to account for his/her actions. It may also be referred to as "*the duty*" to carry out a particular task.

Unlike authority, responsibility cannot be wholly delegated; the manager maintains the ultimate responsibility for the performance of tasks.

iii. **Accountability** refers to *"answerability"* or the extent to which an individual is answerable to the results of his actions. It entails the credit for desirable results and taking the blame for unfavourable consequences. It is also used to refer to the obligation to report to superiors and it is associated with the scalar chain: the reporting levels, the subordinate remains accountable to the superior in that he has to report to him. Generally accountability of results rest with the manager.

SOLUTION FOUR

a) In leading the people, the manager performs the following three distinct tasks

Communication: the process of information flow from one person to another and across the organization.

Leadership: the process by which a manager guides and Influences the work of his subordinates; and;

Motivation: the act of stimulating the people so that they give their best to the organisation.

b) **Leading** is a function predominantly interpersonal in nature. In the organizational context many problems arise because of the failure of managers to understand the people, their aspirations, attitudes, and behaviour as individuals and in groups. If the manager fails in leading the people towards better performance, any amount of planning and organizing, however effective they are, may not help the organisation.

c) **Planning and controlling** – the two functions are closely interrelated in that while plans specify the objectives to be achieved, control as a managerial function facilitates to know whether the actual performance is in conformity with the planned one. So that, in the event of deviations, appropriate corrective measures could be taken. In the absence of adequate control mechanism, unexpected changes in the environment may push the organisation off the track. Thus, controlling implies measuring and correcting the activities to ensure that events conform to plans. That is why planning and controlling is often described as the 'Siamese' twins of management.

d) It involves four main elements:

- Establishing standards of performance;
- Measuring the actual performance and comparing it against the standard performance;
- Detecting deviations, if any, in order to make corrections before it is too late; and
- Taking appropriate corrective measures.

SOLUTION FIVE

a) The following are the characteristic of public sector organisations:

i. They are Accountable to the government and parliament
ii. Funding is through raising taxes, charges through goods and services and borrowing
iii. Resources are limited due to high demand for public services.

b) The following are features of public sector organisations:

i. Fairness it allows access by everyone
ii. Filling the gaps left by the private sector
iii.Public interest- government if well placed to provide finances for public goods.

c) The following are the measures used for value for money in the public sector:

i. Economy –attaining the appropriate quantity and quality of physical, human and financial resources
ii. Efficiency – production of maximum outputs for any given set of resource inputs, the difference between service produced and inputs used.
iii. Effectiveness – how well an activity is achieving its policy objective the level of compliance with standards.

d) Connected stakeholders are individuals or organizations that have direct interest in the business, but do not work emerge as closed markets as nations become more developed.

SOLUTION SIX

a) The importance of research and development is the concern for the development of new products and processes by developing and modifying their products in order to remain competitive.

b) The following are the purchasing objectives:

i. Appropriate quantities of materials and services to avoid wastage
ii. Product of the required quality to make sure they are consumed without piling up
iii. At an acceptable price in order to save money
iv. With suitable arrangements for delivery for timing and location

c) The following are the functions of human resource management:

i. Forecasting requirements for employee number and skills
ii. Recruitment of new employees
iii. Keeping employee records
iv. Retention of staff
v. Downsizing
vi. Training and retaining the work force
vii. Pay and terms of employment for employee's disciplinary processes dealing with matters relating to employment law.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA CERTIFICATE IN ACCOUNTANCY

CA 1.6: BUSINESS COMMUNICATION

WEDNESDAY 14 SEPTEMBER 2022

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 one correct answer you have chosen in your booklet. Marks allocated are indicated against each question.

1.1 ………. is an extremely fast memory chip.

A. Cache

B. Random Access Memory

C. Read Only Memory

D. MICR

(2 marks)

1.2 What would be a suitable software package to aid an accountant with his calculations?

A. An expert system

B. A presentation graphics package

C. A spreadsheet

D. A math package

(2 marks)

1.3 Which of the following is **NOT** a main tab type in Microsoft Word?

A. Left

B. Decimal

C. Justify

D. Right

(2 marks)

1.4 What name is given to a network that is accessible to authorised outsiders?

A. Extranet

B. Intranet

C. Internet

D. WAN

(2 marks)

1.5 Which of the following controls involves the adding of data in a form previously agreed between the sender and recipient of a message?

A. Validation
B. Authentication
C. Authorisation
D. Identification

(2 marks)

1.6 In which category of communication can you place meetings?

A.Oral communication
B. Visual communication
C. Written communication
D. Non verbal communication

(2 marks)

1.7 Looking at formal channels of communication, which one is the most liberal?

A. Diagonal communication
B. Vertical communication
C. Horizontal communication
D. Grapevine communication

(2 marks)

1.8 Which one of the **7C's** of effective communication relates to aspect of the PASS concept?

A. Conciseness
B. Completeness
C. Consideration
D. Correctness

(2 marks)

1.9 Which one of the following is an example of reference material as contents of a report?

A. Where to find table of contents

B. Where to find a page on acknowledgements

C. Where to find a page on a list of abbreviations

D. Where to find published material

(2 marks)

1.10 State one (1) document that is produced after a meeting is held.

A. Minutes

B. Agenda

C. Notice

D. Agenda and Notice

(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

You work as an accountant for a small but busy company that sells auto spares. The company has been in business for over 30 years. At present, the use of computers is limited to word processing and spreadsheets; there is no information system being used.

As a qualified Accountant, you have been told to take over the day-to-day management of the company. The Finance Manager believes that the business needs to be modernised and has asked you to send him an email explaining some of the vital information to him that would help him appreciate the efforts, requirements and benefits of modernizing operations in the firm.

Required:

(a) Explain any five (5) advantages of using a database. (10 marks)

(b) Recommend a type of information system that would be ideal for the Finance Manager that he could use to generate information for monitoring performance and routine coordination among his team. (2 marks)

(c) Mention any four (4) characteristics that the recommended type of system in (b) that possess that makes it ideal for that purpose. (8 marks)

[Total: 20 Marks]

<u>QUESTION THREE</u>

(a) The computer's memory is also known as main storage or internal storage. Outline four (4) things that the main storage of a computer holds. (8 marks)

(b) Microsoft Windows skills are essential for a computer user to possess. A skilled user will be able to accomplish their tasks effectively as they interact with the computer system.

Required:

Distinguish copy from cut in Microsoft Word. (2 marks)

(c) State any five (5) ways in which information is used or required in an organisation. (10 marks)

[Total: 20 Marks]

QUESTION FOUR

(a) Organizational information systems are always vulnerable to security risks and as such the data they house must be protected at all costs from unauthorized modification, disclosure or destruction and ultimately viruses.

Required:

(i) Explain what the role of processing controls is. (2 marks)

(ii) List the two (2) types of processing controls and briefly state what each type is used for. (4 marks)

(iii) Briefly explain what technical controls are and why they are necessary. (2 marks)

(iv) Provide two (2) examples of technical controls that you would implement in your organization. (2 marks)

(b) Briefly discuss the following types of processing

(i) Batch Processing (5 marks)

(ii) Online Processing (5 marks)

[Total: 20 Marks]

QUESTION FIVE

Your company hosted an end-of-the-year cocktail party for all employees. You had the opportunity to interact with people from various departments. You discussed some company policy changes that have occurred over the course of the year. What drew your attention was when one of the Human Resource Department employees informed Mr. Masheke that your immediate supervisor is resigning and that Mr. Masheke will be promoted to senior accountant. Mr. Masheke was overjoyed by the rumor of the impending promotion. However you are very mindful about grapevine

Required:

(a) Define any two (2) formal channels of communication. (4 marks)

(b) Write a memo to remind Mr Masheke any five (5) disadvantages of grapevine so that he should be cautious about the news. (16 marks)

[Total: 20 Marks]

QUESTION SIX

You recently graduated with honors in Chartered Accountancy (CA) from ZICA. You are now highly trained to hold innumerable senior and advisory roles in both private and public sectors of the economy. You present your newly acquired qualifications to you supervisor for a pay rise as you have taken up more responsibility. Your supervisors asked you to send him an updated Curriculum Vitae (CV) for consideration.

Required:

(a) Prepare a Curriculum Vitae (CV) that you will present to your supervisor. (15 marks)

(b) What is the use of a covering letter? (2 marks)

(c) State three (3) reasons a CV should be kept up-to-date.(3 marks)

[Total: 20 Marks]

END OF PAPER

CA 1.6 BUSINESS COMMUNICATION SUGGESTED SOLUTIONS

SOLUTION ONE

1.1 A

1.2 C

1.3 C

1.4 A

1.5 B

1.6 A

1.7 A

1.8 C

1.9 D

1.10 A

SOLUTION TWO

a)Advantages of using a database

- Less duplication
- Centralised system
- Easier updating of data
- Improved access to data
- Sharing of data across several functional areas
- More and improved formal control of data

b)Management Information System

c) Characteristics of MIS

- support structured decisions at operations and managerial control levels
- designed to report on existing operations
- ability to generate customised reports
- MIS have internal focus
- Flexible reporting capabilities

SOLUTION THREE

a) CPU stands for Central Processing Unit, which is the collection of circuitry and registers that performs the processing in a computer system. The main memory stores:

- Programs
- Input Data
- Output Data
- Working area

b) Copy retains the highlighted text in its current place. Cut on the other hand removes the highlighted text from its current place.

c)

Within the organisation information is required for:

- Planning
- Budgeting
- Controlling
- Recording transactions
- Performance measurement
- Decision making

SOLUTION FOUR

a)

i. Processing controls are designed to ensure that the processing and conversion of data is performed correctly.
ii. Validation checks and file checks; the two main types of processing controls, are used to enhance data quality. Validation checks check that the data is processed correctly and the file checks ensure the integrity of the file structure is maintained.

iii. Technical controls are software-based IT solutions to system security issues. Technical controls are put in place so that an organization's management is able to exert some control over the activities of its employees.

iv. Examples of technical controls include authorization, documentation, back up, recovery.

b) Explain the following types of processing

(i) Batch Processing

Batch processing involves transactions being grouped and stored before being processed at regular intervals, such as weekly, monthly or daily. Because data is not input as soon as it is received the system will not always be up-to-date.

(ii) Online Processing

A system is referred to as 'online', or sometimes known as online transaction processing (OLTP), when the data is input directly to the computer from the point of origination, and where the output is transmitted to the user's location. This involves data communications. An online system may be batch-based.

SOLUTION FIVE

(a) (i) Vertical communication is one in which information flows along the ranks either from the top to the bottom or vice versa.

OR it is the channel of communication that involves the upward and downward flow of information through the ranks.

(ii) Horizontal communication refers to the channel of communication that shares information among officers with the same official status.

(iii) Diagonal communication is a channel that allows members of different departments and sections to share information regardless of their official rankings.

(b)Memo

To: Mr Masheke

From: any name

Any date during the appropriate days

Ref (optional)

Subject: Reminder on the Disadvantages of Grapevine

Following the rumuor which excited you from one member of staff from Human Resource Management Department, stating that you are soon going to replace the resigning Senior Accountant, I wish to remind you about disadvantages of rumours so that you are not over joyed unnecessarily.

One important reason we should not get excited about grapevine information is that it has several disadvantages as follows:

(a) Information in it may be exaggerated and distorted

(b) It is unreliable because it has no stamp of authority

(c) Grapevine can lead one into making wrong decisions

(d) Managers may not take it kindly as such it has serious repercussions for those who peddle it

(e) It reaches out without written proof.

(F) It can lead to conflicts among staff if rumors are believed and acted upon

Therefore, I would like to advise that before you cerebrate due to the impending promotion wait patiently for the letter to that effect. Alternatively you can silently verify the allegation with the director.

I will be glad if you take my advice seriously.

Sender's signature

SOLUTION SIX

a)CURRICULUM VITAE

MUSA MATAKALA

21, Luwa Road, Hillside

Lusaka

CURRICULUM VITAE

PERSONAL INFORMATION

Name:	Musa Matakala
Date of birth:	01/ 03/2000
Gender:	Female
Nationality:	Zambian
Religion:	Christian
Marital Status:	Married

EDUCATION AND QUALIFICATIONS

YEAR	INSTITUTION	PAPER QUALIFICATION
2019-2022:	ZICA, Lusaka	Bachelor of Accountancy, ZICA

Member of the Zambia Institute of Chartered Accountancy (ZICA)

2014-2017:	Lunga Day Secondary School	General Certificate of Education
2012- 2013:	Lusaka Basic School	Grade Nine (9) School certificate (ECZ)
2005 – 2011:	Tina Trust School	Grade Seven (7) School Certificate (ECZ)

SKILLS

Able to:

- Prepare all relevant monthly, quarterly, annual and ad-hoc management reports.
- Coordinate annual budget preparation
- Participate in evaluating the institution's financial performance against budget.
- Participate in the implementation of internal accounting systems, procedures and relevant internal controls to safeguard against fraud and inefficiency.
- Participate in evaluating proposals for new business investment opportunities to ensure funds for business ventures are deployed on projects which will yield the greatest return on investment.
- Providing financial analysis and forecasting

KEY ATTRIBUTES AND SKILLS

- Excellent interpersonal skills.
- Strong oral and written communication skills
- Assertive and confident
- Very good organization and multitasking skills
- Team player and able to work under minimum supervision
- Able to handle conflicts

WORK EXPERIENCE

Organization: Shoprite Checkers

Position: Cashier

Duties:

- Manage transactions with customers using cash registers.
- Scan goods and ensure pricing is accurate.
- Collect payments whether in cash or credit.
- Issue receipts, refunds, change or tickets.
- Redeem stamps and coupons.
- Cross-sell products and introduce new ones.

REFERENCES

Mr. Peter Daka	Mr. Jean Kasaji	Ms. Brenda Mulombwe
Branch Manager	Head of Department	Program Manager
Shoprite Checkers	Ministry of Health	PPAZ
P.O. Box 31735	P.O Box 30981	P.O Box 30028
Lusaka	Kitwe	Lusaka
Cell: 0977645211	Cell: 0966456712	Cell : 0771234658

b) The goal of cover letter is to explain and accompany an item or documents in any business letter (for example when applying for a job, a Curriculum Vitae and a certificate can accompany a job application letter.)

c) CV

- It helps you to focus on your goals
- It helps in getting side jobs or extra work
- It helps in case of promotion opportunities
- It can help save your job in case of downsizing.
- To match changes in their career and personal information
- To self-one to potential employers.
- To present a complete and orderly record

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ZAMBIA APPLICATION ADVANCED DIPLOMA IN IN ACCOUNTANCY

CA 2.1: FINANCIAL REPORTING

MONDAY 12 SEPTEMBER 2022

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

On 1 April 2022, Paul Ltd acquired 60% of the 4 million ordinary shares of Saul Ltd in a share exchange of two shares in Paul Ltd for three shares in Saul Ltd. The issue of shares has not yet been recorded by Paul Ltd. At the date of acquisition, shares in Paul Ltd had a market value of K6 each. Below are the summarised draft financial statements of both companies.

Statements of Profit or Loss for the year ended 30 September 2022

	Paul Ltd	Saul Ltd
	K'000	**K'000**
Revenue	85,000	42,000
Cost of Sales	(63,000)	(32,000)
Gross Profit	22,000	10,000
Distribution Cost	(2,000)	(2,000)
Administrative Expenses	(6,000)	(3,200)
Finance Cost	(300)	(400)
Profit Before Tax	13,700	4,400
Income Tax Expense	(4,700)	(1,400)
Profit for the Year	**9,000**	**3,000**

Statements of Financial Position as at 30 September 2022

	Paul Ltd	Saul Ltd
	K'000	**K'000**
Assets		
Non-Current Assets		
Property, Plant and Equipment	40,600	12,600
Current Assets	16,000	6,600
Total Assets	**56,600**	**19,200**
Equity and Liabilities		
Ordinary shares K1	10,000	4,000
Retained Earnings	35,400	6,500
	45,400	10,500
Non-Current Liabilities		
10% Loan Notes	3,000	4,000
Current Liabilities	8,200	4,700
Total Equity and Liabilities	**56,600**	**19,200**

The following information is relevant:

(i) At the date of acquisition, the fair values of Saul Ltd's assets were equal to their carrying amounts with the exception of an item of plant, which had a fair value of K2 million in excess of its carrying amount. It had a remaining life of five years at that date (straight-line depreciation is used). Saul Ltd has not adjusted the carrying amount of its plant as a result of the fair value exercise.

(ii) Sales from Saul Ltd to Paul Ltd in the post-acquisition period were K8 million. Saul Ltd made a markup on cost of 40% on these sales. Paul Ltd had sold K5.2 million (at cost) as at 30 September 2022.

(iii) Other than where indicated, profit or loss items are deemed to accrue evenly on a time basis.

(iv) Saul Ltd's trade receivables at 30 September 2022 include K600,000 due from Paul Ltd which did not agree with Paul Ltd's corresponding trade payable. This was due to cash in transit of K200,000 from Paul Ltd to Saul Ltd. Both companies have positive bank balances.

(v) Paul Ltd has a policy of accounting for any non-controlling interest at fair value. The fair value of the non-controlling interest in Saul Ltd at the date of acquisition was estimated to be K5.9 million. Consolidated goodwill was not impaired at 30 September 2022.

Required:

(a) Prepare the consolidated statement of profit or loss for Paul Ltd for the year ended 30 September 2022. (15 marks)

(b) Prepare the consolidated statement of financial position for Paul Ltd as at 30 September 2022. (20 marks)

(c) *IFRS10: Consolidated Financial Statements* outlines the requirements for the preparation and presentation of consolidated financial statements, requiring entities to consolidate other entities it controls.

Required:
Define ***control*** and Indicate four (4) circumstances in which the entity may not have acquired majority equity interest of another entity but is able to exercise control. (5 marks)

[Total: 40 marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt ant THREE (3) questions in this section.

QUESTION TWO

Mukezo Plc is a manufacturer of clothing and has manufacturing plants in most regions. The following trial balance relates to Mukezo Plc. as at 31 March 2022.

	Dr	Cr
	K'000	K'000
Ordinary shares of 50 ngwee each		35,000
Share premium		82,100
Retained earnings at 1 April 2021		72,350
4% loan note (note vii)		22,500
Investment income		2,700
Revenue (note iv)		475,350
Distribution costs	77,100	
Administrative expenses	91,150	
Purchases	250,350	
Loan note interest and interim dividends paid	3,000	
Land and buildings cost (includes K9m for land) (note i)	57,000	
Land and buildings: accumulated depreciation at 1 April 2021 (note iii)		9,600
Plant and equipment: cost (note ii)	38,500	
Plant and equipment: accumulated depreciation 1 April 2021 (note iii)		18,900
Inventories 1 April 2921	66,600	
Deferred taxation (note viii)		10,800
Trade and other receivables	110,750	
Trade and other payables		43,050
Bank		9,850
Financial asset (note vi)	87,750	
	782,200	**782,200**

The following notes are relevant:

(i) The ten (10) year old land and buildings were revalued for the first time on 1 April 2021 to K113.4 million (with K15 million relating to land). Mukezo makes no transfer to retained earnings of any revaluation surplus.

(ii) A piece of plant with a carrying amount of K3.6 million was tested for impairment on 31 March 2022 (after charging depreciation). Results reviewed that its fair value less costs to sell was K2.55 million. On the same date, the asset was expected to generate annual net income of K0.6 million for the next five (5) years at which point the asset would be disposed of for K0.63 million. An appropriate discount rate for Mukezo Plc. is 14%. five (5) year discount factors at 14% are:

Present value factor	Cumulative PV Factor
0.519	3.433

(iii) Depreciation of plant and equipment to be included as cost of sales and that of buildings as administration cost. Depreciation on non current assets to be provided as follows:

- Buildings straight line over 50 years as at the date of purchase.
- Plant and equipment 20% reducing balance method.

(iv) Included in Revenue is K58.5 million cash sales made by Mukezo Ltd while acting as an agent for Kimina Plc.. The agency agreement provides for a 10% of the sales as commission to Mukezo Plc. By 31 March 2022, Mukezo Ltd had remitted to Kimina K52.65 million included in purchases.

(v) Closing inventories at 31 March 2022 were valued at K55.5 million.

(vi) The financial asset is an equity instrument whose fair value was K90.75 million on 31 March 2022. There were no purchases or disposals of any of these investments during the year. The instruments are designated as held for trading financial assets.

(vii) Mukezo Ltd issued its 4 % loan notes on1 April 2021 at their nominal value of K22.5 million. The loan notes are redeemable at a premium on maturity in 2025 and have an effective interest rate of 8%.

(viii) A provision for current income tax for the year ended 31 March 2022 of K3.75 million is required. Further, deferred tax is to be increased to K12.6 million at 31 March 2022.

(ix) Interim dividends of 3 ngwee per share were paid on 1 January 2022. No final dividend was declared until 30June 2022 for the year ending 31 March 2022.

Required:

(a) Prepare the statement of profit or loss and other comprehensive income for Mukezo Ltd for the year ended 31 March 2022. (8 marks)

(b) Prepare a statement of financial position for Mukezo Ltd as at 31 March 2022. (12 marks)

[Total: 20 Marks]

QUESTION THREE

The following financial statements relate to Lute Plc:

Statement of Profit or Loss and Other comprehensive income for the year ended 31 December 2022	K'000
Revenue	11,480
Cost of sales	(9,680)
Gross profit	1,800
Income from and gains on investment property	120
Distribution costs	(240)
Administrative expenses (note (ii))	(700)
Finance costs	(100)
Profit before tax	880
Income tax expense	(320)
Profit for the year	560
Other comprehensive income	
Gains on property revaluation	200
Total comprehensive income	760

Statements of financial position as at	**31 December 2022**		**31 December 2021**	
	K'000	K'000	K'000	K'000
Assets				
Non-current assets (note (i))				
Property, plant and equipment		6,130		4,440
Investment property		840		800
		6,970		5,240
Current assets				
Inventory	2,420		1,620	
Trade receivables	960		1,080	
Income tax asset	nil		100	
Bank	20	3,400	nil	2,800
Total assets		10,370		8,040
Equity and liabilities				
Equity shares of K0.40 each (note (ii))		2,000		1,200
Share premium	1,200		nil	
Revaluation reserve	20		20	
Retained earnings	2,880	4,100	2,620	2,640
		6,100		3,840
Non-current liabilities				
Lease Obligations (note	275		350	
Government Grant	400		300	
10% loan notes	nil		800	
Deferred tax	100	775	60	1,510
Current liabilities				
Trade payables	2,820		2,100	
Bank overdraft	nil		240	
Lease Obligations	125		150	
Government Grant	250		200	
Current tax payable	300	3,495	nil	2,690
Total equity and liabilities		10,370		8,040

The following supporting information is available:

(i) An item of plant with a carrying amount of K480,000 was sold at a loss of K180,000 during the year. Depreciation of K560,000 was charged on property, plant and equipment in the year ended 31 December 2022. Property plant and equipment includes Right of Use Assets recognised in accordance with IFRS 16 Leases. All lease payment instalments are in arrears on 31 December each year in accordance with lease agreements. Cash paid during the year to 31 December 2022 to redeem the principal component of lease obligations amounted to K300,000.

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

(ii) There were two share issues during the year. A bonus issue of 1 for every 6 existing shares was made on 1 April 2022 and was financed out of the revaluation reserve. Another issue was made for cash on 1 July 2022.

(iii) During May 2022,Lute Plc received in cash a grant from the government in respect of the acquisition of production equipment. Lute's policy is to recognise capital grants as income over the useful economic life of the related assets. Grant income amounting to K230,000 was recognised during the year to 31 December 2022 in profit or loss.

Required:

Prepare a statement of cash flows for Lute for the year to 31 December 2022 in accordance with IAS 7 *Statement of cash flows*. **[Total: 20 Marks]**

QUESTION FOUR

The objective of IFRS 15 *Revenue from contracts with customers* is to establish the principles that an entity shall apply to report useful information to users of financial statements about the nature, amount, timing and uncertainty of revenue and cash flows arising from a contract with a customer.

Required:

(a) Briefly explain IFRS 15 five step Revenue recognition criteria in the order in which they ought to occur. (10 marks)

(b) Mwase Ltd. is a manufacturer of catering equipment in Chililabombwe and has an accounting period that ends 30 September each year. The following transactions relate to Mwase Ltd:

Transaction one

On 1 July 2021, Mwase Ltd sold and installed catering equipment on cash basis to Mphala Catering Services Co for K1.5 million. Included in the sale price was a three (3) year servicing contract which has a value of K0.3 million and installation charge of K0.07 million. (5marks)

Transaction two

Mwase sold a large number of cartering equipment to a new customer for K30 million on 1 April 2021. The customer paid K3 million up front and agreed to pay the remaining balance on 1 April 2022. Mwase has a cost of capital of 7%. (5 marks)

Required:

Explain the effect of the above two transactions on Mwase's financial statements for the year ended 30 September 2021. **[Total:20 Marks]**

QUESTION FIVE

The Conceptual Framework for Financial Reporting was formulated to assist the International Accounting Standards Board (IASB) in developing and revising International Financial Reporting Standards (IFRSs). It also helps preparers to develop consistent accounting policies for areas that are not covered by a standard or where there is a choice of accounting policy, and assistsusers to understand and interpret IFRSs.

(a) Briefly explain the underlying assumption in the preparation of financial statements. (2 marks)

(b) Discuss faithful representation, relevance and comparability as qualitative characteristics of decision useful financial information. (9 marks)

(c) Explain four functions of the International Financial Reporting Standards Foundation. (9 marks)

[Total: 20 Marks]

END OF PAPER

CA 2.1 FINANCIAL REPORTING SUGGESTED SOLUTIONS

SOLUTION ONE

(a)

PAUL GROUP
CONSOLIDATED STATEMENT OF PROFIT OR LOSS FOR THE YEAR ENDED 30 SEPTEMBER 2022

			K'000
Revenue (85,000 + (42,000 X 6/12) – 8,000 (W7))			98,000
Cost of sales (or W7)			
(63,000 + (32,000 x 6/12) – 8,000 intra-group sales + 200(W2) + 800(W2))			(72,000)
Gross profit			26,000
Distribution costs (2,000 + (2,000 X 6/12))			(3,000)
Administrative expenses (6,000 + (3,200 X 6/12))			(7,600)
Finance costs (300 + (400 X 6/12))			(500)
Profit before tax			14,900
Income tax expense (4,700 + (1,400 X 6/12)			(5,400)
Profit for the year			9,500
Profit attributable to: Owners of the parent			9,300
Non-controlling interests (W4)	(6/12 x3,000-800-200) x 40%)		200
			9,500

(b)
PAUL GROUP
CONSOLIDATED STATEMENT OF FINANCIAL POSITION AT 30 SEPTEMBER 2022

K'000

Non-current assets

Property, plant and equip. (40,600+12,600+ 2,000 Fv adj. -200 Dep) 55,000

Goodwill (W3) 4,500

59,500
Current assets (16,000+6,600-800 pup-600 intercomp+200 Cash) W8) 21,400

Total assets 80,900
Equity attributable to parent Share capital (10,000 +1,600 share ex.) 11,600

Share premium (9,600 – 1, 600) 8, 000

Retained earnings (W4) 35,700

55,300
Non-controlling interests (W5) 6,100

61,400
Non-current liabilities 10% loan notes (3,000 + 4,000) 7,000

Current liabilities (8,200 + 4,700 – 400 (W10)) 12,500

80,900

Workings

1. **Group structure**

Paul Ltd

Date of acquisition/ control: 1/04/2022

60% control

Date of reporting: 30/09/2022

40% NCI

Post-acquisition period: 6 months

Saul Ltd

2. **Net Assets of Saul**

	Acquisition date 1/04/2022 K'000	Reporting date 30/09/2022 K'000	Post acquisition movements K'000
Stated capital issued	4,000	4,000 Income	_
surplus:			
(6500-(3000×6/12)	5000	6,500	1,500
Fair value adjustment: plant	2,000	2,000	—
Depreciation adjustment:			
Plant (2000/5×6/12)	—	(200)	(200)
PUP on inventory			
(40/140× (8000-5200)	—	(800)	(800)
	11,000	**11,500**	**500**

3. **Goodwill computation**

		K'000
Cost of Investment (60% × 4,000 × 2/3 × 6)		9,600
Fair value of NCI at acquisition		5,900
		15,500
Less: Net Assets at acquisition (W2)	(11,000)	
Total Goodwill at acquisition & consolidation		**4,500**

4. **Consolidated retained earnings.**

K'000

Paul Ltd

Balance at 30/09/2022 35,400

Saul Ltd

Group share of post-acquisition profit (60%×500 W2) 300

At consolidation **35,700**

5. **Non-Controlling interest- Saul Ltd**

K'000

Fair value of NCI at acquisition (W3)

5,900 Add: NCI's share of post-acquisition profit (40%×500)

200

At consolidation **6,100**

6 Intragroup trading

DR **CR**

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

7 Cost of sales

	K'000
Paul Ltd	63,000
Saul (32,000 X 6/12)	16,000
Movement on FV adjustment (W6)	200
Intragroup purchases (W7)	(8,000)
Unrealised profit (W7)	800
	72,000

8 Current assets

	K'000
Paul Ltd	16,000
Saul	6,600
Unrealised profit in inventory (W7)	(800)
Intercompany receivables (per question)	(600)
Cash in transit (W10)	200
	21,400

10 Cash in transit

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

(c) Control is identified by IFRS10 Consolidated Financial Statements as the sole basis for consolidation and comprises the following three elements:

a. **Power over the investee**, where the investor has current ability to direct activities that significantly affect the investee's returns;

b. Exposure, or right to, variable returns **from involvement in the investee; and**

c.**The ability to use the power** over the investee to affect the amount of the investor's returns.

Control is the power to govern the financial and operating policies of an entity so as to obtain benefits from its activities. Control is presumed where the acquirer acquires more than one-half of that other entity's voting rights (unless it can be demonstrated that such ownership does not constitute control).

Control may also have been obtained, even when one of the combining entities does not acquire more than one-half of the voting rights of another, if, as a result of the business combination, it obtains:

- Power over more than one-half of the voting rights of the other entity by virtue of an agreement with other investors; or
- Power to govern the financial and operating policies of the other entity under a statue or an agreement; or
- Power to appoint or remove the majority of the members of the board of directors or equivalent governing body of the other entity; or
- Power to cast the majority of votes at meetings of the board of directors or equivalent governing body of the other entity.

SOLUTION TWO

a) Mukezo Plc.'s
Statement of profit or loss for the year ended 31 March 2022

	K,000
Revenue [475,350-52,650 (W1)]	422,700
Cost of sales (W3)	(213,770)
Gross profit	208,930
Investment income	2,700
Fair value gain from Financial Asset	3,000
Administrative expenses (W3)	(93,610)
Distribution costs (W3)	(77,100)
Operating profit	43,920
Finance cost (W5)	(1,800)
Profit before tax	42,120
Income tax (W7)	(5,550)
Profit for the year	36,570
Other comprehensive income:	
Revaluation surplus (W2)	66,000
Total comprehensive income	102,570

b) Mukezo Plc.'s
Statement of financial position as at 31 March 2022

	K'000
Non current assets	
Property, Plant and equipment (W2)	125,570
Financial Asset (W4)	90,750
Total non current asset	216,320
Current assets	
Inventories	55,500
Trade and other receivables	110,750
Total current assets	166,250
Total assets	**382,570**
Equity and liabilities	
Equity	
Equity share capital of K0.50 each	35,000
Share premium	82,100
Retained earnings(72,350+36,570-2,100)	106,820
Revaluation surplus	66,000
Total equity	289,920
Non current liabilities	
4% loan note (W5)	23,400
Deferred tax	12,600
Total non current liabilities	36,000
Current liabilities	
Trade and other payables	43,050
Current tax payable	3,750
Bank overdraft	9,850
Total current liabilities	56,650
Total equity and liabilities	**382,570**

WORKINGS

1. **Revenue**

Commission payable (10% * K58,500 = 5,850

Amount reversible by the following double entry:

Dr Revenue	52,650	
Cr cost of sales		52,650

2. **Property, Plant and Equipment**

	Land	**Buildings**	**Plant**
	K'000	K'000	K'000
Cost b/f at 1/4/2021	9,000	48,000	38,500
Less acctd dep'n b/f	-	(9,600)	(18,900)
CA b/f at 1/4/2021	9,000	38,400	19,600
Revaluation surplus	6,000	60,000	-
Revalued at 1/4/2021	15,000	98,400	19,600
Depreciation expense*	-	(2,460)	(3,920)
CA at 31/3/2022	15,000	95,940	15,680
Impairment loss plant	-	-	(1,050)**
CA/RA at 31/3/2022	15,000	95,940	14,630

Total PPE = 125,570 (15,000+95,940+14,630)

*Depreciation: Buildings= 98,400/40 years remaining = 2,460

Plant = 20% * 19,600 = 3,920

**Impairment loss of plant:

Carrying amount of plant	3,600
Recoverable amount of plant(below)	2,550
Impairment loss	1,050
Fair value less costs to sell	2,550

Value in use 2,387 [(0.6*3.433)+(0.63*0.519)]

Therefore, the higher of fair value less costs to sell becomes recoverable amount which is lower than the plant carrying amount hence plant impaired by K1,050.

3. **Operating expenses**

	Cost of sales	distribution	Administrative
	K'000	**K'000**	**K'000**
Per Trial Balance	-	77,100	91,150
Opening inventory	66,600		
Purchases	250,350		
Closing inventory	(55,500)		
Impairment loss	1, 050		
Agency sales (W1)	(52,650)		
Depr'n: Plant	3,920		
Building			2,460
TOTALS	213,770	77,100	93,610

4. **Financial asset** **K'000**

Fair value b/f at 1/4/2022	87,750
Fair value gain	3,000
Fair value at 31/3/2022 c/f	90,750

5. **4% loan notes**

	Bal b/f	effective interest @8%	nominal int @4%	bal c/f
	K,000	K'000	K'000	K'000
Year/end 31/3/22	22,500	1,800	(900)	23,400

6. **Dividends paid**

K0.03 * (K35,000,000/K0.50) = K2,100

7. **Taxation payable** **K'000**

Current tax payable	3,750
Plus increase in deferred tax:	
(12,600-10,800)	1,800
Charge to profit and loss	5,550

SOLUTION THREE

Lute Plcstatement of cash flows for Lute for the year to 31 December 2022

			K'000	K'000
Profit Before Tax				880
Finance Costs				100
Income from investment property				(120)
Depreciation				560
Government Grant income				(230)
Loss on disposal of plant				180
Increase or Decrease in:				
Inventory	(2,420-1,620)			(800)
Trade receivables	(960-1,080)			120
Trade payables	(2,820-2,100)			720
Operating cash flow				1,410
Income Tax Refund	(W1)			120
Interest Paid	(W2)			(100)
Dividends Paid	(W3)			(300)
Net Cash Flow from Operating Activities				1,130
Net Cash Flow from Investing Activities:				
Disposal of Plant	(480-180)		300	
Purchase of PPE	(W4)		(2,330)	
Government Grant Received	(W6)		380	
Income from Investment Property		(W7)	80	
				(1,570)
Net Cash Flow from Financing activities:				
Issue of shares	(W8)		1,800	
Redemption of 10% loan notes		(0-800)	(800)	
Redemption of lease liabilities			(300)	
				700
Cash Flow Changes in Cash and Cash Equivalents during the year				260
Total changes in Cash and Cash Equivalents				
Opening Cash and Cash Equivqlents				(240)
Closing cash and Cash Equivqlents				20

Workings:

W1. Income Tax paid

Income tax Liabilities A/c		K'000
Bal b/d (60-100)		(40)
Tax charge in SPLOCI for the year		320
		280
Income tax refund, ie received (balance)		120
Bal c/d (100+300)	400	

W2. Interest Paid

Interest Liabilities A/C		K'000
Bal b/d		-
Finance costs charge in P/L		100
		100
Interest paid (balance)	(100)	
Bal c/d	-	

W3. Dividends paid

Retained Earnings A/c		K'000
Bal b/d		2,620
Profit for the year		560
		3,180
Dividends paid (balance)		(300)
Bal c/d	2,880	

W4. Cash paid to Purchase PPE

PPE A/c		K'000
Bal b/d		4,440
Depreciation		(560)
Disposals		(480)
Revaluations		200
Non Cash Additions: Lease Liabilites contracted (W5)		200
		3,800
Cash paid to acquire PPE (balance)	2,330	
Bal c/d	6,130	

W5. Additions to PPE on contracting lease obligations:

Lease Obligations (Principal component only) A/c K'000

Bal b/d	(350+150)	500
liabilities redeemed during the year		(300)
		200
Lease liabilities contracted during the year	(balance)	200
Bal c/d	(275+125)	400

W6. Government Grants received

Government Grant – deferred income A/c		K,000
Bal b/d	(300+200	500
Income amortised in P/L for the year		(230)
		270
Grant received during the year	(balance)	380
Bal c/d	(400+250)	650

W7. Income received from Investment properties:

Investment property income A/c		K'000
Revaluation of investment property	(840-800)	40
Rental Income	(balance)	80
Total investment property income in P/L		120

W8. Cash received from issue of shares

		Share Capital A/c K'000	Share Premium A/c K'000
Bal b/d		1,200	0
Bonus Issue from revaluation Reserve	1/6X1,200	200	-
		1,400	0
Issue for cash	(balance)	600	1,200
Bal c/d		2,000	1,200

Total cash from issue of shares (600+1,200) = 1,800

SOLUTION FOUR

a) Five step model revenue recognition

Revenue is recognized when the entity has transferred promised goods or services to the customer. Below are five steps for recognition process.

THE FIVE STEP MODEL

Identify the contract with the customer

Identify the separate performance obligation

Determine the transaction price

Allocate the transaction price to the performance obligations

Recognize revenue when (or as) a performance obligation is satisfied.

i) Identify the contract with the customer

A contract exists when the following are in place:

- Parties have approved the contract and are committed to carrying it out
- Each party's rights to goods can be identified
- Payment terms can be identified
- Contract has commercial substance
- It is probable that the entity will collect consideration to which entitled
- Contract can be written, verbal or implied.

ii) Identify the separate performance obligation

Performance obligations are promises to transfer distinct goods or services to customer. Key point is **distinct goods and services** (sold separately, distinct function or margin, not highly dependent on other goods, does not significantly modify other goods.

iii) Determine the transaction price

Amount of consideration company expects to be entitled to from customer

Amounts collected on behalf of third parties are excluded (e.g sales tax)

Incorporates effects of customer's credit risk and reasonable estimate of variable contingent amount which should only be included if highly probable. E,g discounts.

Consideration may include financing components (time value of money) if:

- There is a difference between promised consideration and cash selling price of promised goods or services; or
- The length of time between the transfer of promised goods to customer and payment date are substantial.

iv) Allocate the transaction price to the performance obligations

If contract contains more than one distinct performance obligation, it should allocate a transaction price to all separate performance obligations in proportion to the stand alone selling prices.

v) **Recognize revenue when (or as) a performance obligation is satisfied.**

Entity satisfies performance obligation by transferring control of promised goods or service to the customer.

This could be satisfied at a point in time e.g when goods are delivered to customer, or over time. (of which revenue is recognised as per performance obligation satisfied). An entity shall recognise revenue when (or as) the entity satisfies a performance obligation by transferring a promised good or service (ie anasset) to a customer. An asset is transferred when (or as) the customerobtains control of that asset.

Entity must be able to reasonably measure the outcome of the performance obligation before related revenue is recognized.

b)

Transaction one

Mwase would be required to recognize the sale of catering equipment to the value of K1.13 million (W1) immediately and the installation fee of K0.07 million as the performance obligation for the two are satisfied at a point in time. However, Mwase would be required to recognize the servicing charge of K0.3 million based on performance obligation that would have been satisfied as at 30 September 2021 which in this case would be K0.025 million (W2)

The summary financial statement extracts would be as follows

Statement of profit or loss extract for the year ending 30 September 2021

	K'000
Revenue (1,130 + 70+25)	1,225

Statement of financial position extract as at 30 September 2021

	K'000
Non current liabilities	
Deferred income (W2)	175
Current liabilities (W2)	100

Transaction two

This transaction involves the recognition of revenue that has a financing component. IFRS 15 requires that revenue earned but whose payment by customer will be made at a future date be discounted to present value in order to take account of time value of money. This means that only the K3 million will be recognized undiscounted while the balance of K27 million will be discounted at a cost of capital of 7% one year discount as shown in (W3) below.

This means therefore that total revenue to be recognized for the year ended 30 September 2021 would be K28.234 million (W3) with finance income arising from unwinding of the discount of K0.883 to be recognized in profit or loss statement for the same year ending.

Additionally, the statement of financial position will show amounts receivable from the customer of K26.117 million (25.234 million + K0.883 million) under current assets. This is the discounted revenue plus the unwinding of discount.

The summary financial statement extracts would be as follows

Statement of profit or loss extract for the year ending 30 September 2021

	K'000
Revenue (W3)	28,234
Finance income (W3)	883

Statement of financial position extract as at 30 September 2021

	K'000
Current assets	
Receivables (W4)	29,117

WORKINGS	k'000
W1.Total sales value	1,500
Less service fee	(300)
Less installation fee	(70)
Sale value of equipment	1,130

W2. **Service fee recognizable** = 3 months/36 months x 300 = 25
Service fee received but not recognizable hence liability:

Current portion = 12 months/36 months x 300 = **100**

Non current portion =(300 – 100 – 25) =**175**

W3. Revenue recognized

Upfront payment	3,000
Balance discounted(K27,000/1.07^1	25,234
	28,234
Finance income – unwinding of discount:	
7%*25,234 * 6/12	883

Note: unwinding of discount is prorated to six months as the sale took place six months before the reporting date.

W4. Receivables figure

Discounted revenue	25,234
Add unwinding of discount (W3)	883
Total	26,117

SOLUTION FIVE

a) The underlying assumption in the preparation of financial statements is the **going concern** assumption. This means that the entity is viewed as continuing in operation for the foreseeable future. Application of the assumption enables financial statements to be prepared without the need to account for realizable or break-up values of assets and liabilities, which would result in preparation of financial statements with limited value to users. Practical examples on application of the concept are on depreciation of non current assets and accruals and prepayments.

It is assumed the reporting entity has neither the intention nor the necessity of liquidation not the need to cease trading.

b) Faithful representation, relevance and comparability

- **Relevance**: capable of making a difference in the decisions made by users. Relevant information has predictive value, confirmatory value, or both. Predictive value enables users to evaluate or assess past, present or future events. Confirmatory value helps users to confirm or correct past evaluations and assessment. Relevant information is also provided in good time to influence the decisions. Materiality has a direct impact on the relevance of information. It is described as a threshold quality of relevance. This means materiality of an element in financial statements must be checked before other qualities of that information. And if any information does not pass the test of materiality, it does not need to be considered further. Information is material if its omission or misstatement could influence the economic decisions of users taken on the basis of the financial statements.
- **Faithful representation**: information must represent the phenomena that it purports to represent. To be a perfect faithful representation, information would have to possess the following characteristics:

✓ Complete- To be understandable, information must contain all the necessary descriptions and explanations.

✓ Neutrality – information must be neutral, that is, free from bias. Financial statements are not neutral if, by the selection or presentation of information, they deliberately influence the making of a decision or judgement in order to achieve a predetermined result or outcome.

✓ Free from error – Information must be free from error within the bounds of materiality. A material error or omission can cause the financial statements to be false or misleading, and thus unreliable and deficient in terms of their relevance. Free from error does not mean perfectly accurate in all respects. For example, where an estimate has been used the amount must be described clearly and accurately as being an estimate. and free from error.

Users must be able to:

- compare the financial statements of an entity over time to identify trends in its financial position and performance
- compare the financial statements of different entities to evaluate their relative financial performance and financial position.

For this to be the case there must be:

- ✓ consistency and
- ✓ disclosure.
- An important implication of comparability is that users are informed of the accounting policies employed in preparation of the financial statements, any changes in those policies and the effects of such changes. Compliance with accounting standards, including the disclosure of the accounting policies used by the entity, helps to achieve comparability.
- Because users wish to compare the financial position and the performance and changes in the financial position of an entity over time, it is important that the financial statements show corresponding information for the preceding periods.

(c)

- Promoting IASB and its work
- Appointing the members of the IASB, the International Financial Reporting Interpretations Committee (IFRSC) and IFRS Advisory Council;
- Reviewing annually the strategy of the IASB and its effectiveness;
- Approving annually the budget and determining the funding of the IASB.
- Reviewing broad strategic issues affecting accounting standards;
- Establishing and amending operating procedures for the IASB, IFRSIC and IFRSAC
- Facilitating development of understandable IFRSs
- Promoting the use of IFRSs
- Facilitating the adoption of IFRSs
- Taking account of Financial Reporting needs of emerging economies etc

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ZAMBIA APPLICATION ADVANCED DIPLOMA IN ACCOUNTANCY

CA 2.2: MANAGEMENT ACCOUNTING

TUESDAY 13 SEPTEMBER 2022

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)

Luangwa Bicycles Ltd (LM LTD) manufactures bicycles whose output level varies from month to month. No inventory is held. LM LTD's finance department prepares monthly management accounts used for performance evaluation. Budgets for different monthly output levels are given below, together with actual figures for December 2021.

	Budget	Budget	Budget	Actual
Output (No. Of bicycles)	15,000	20,000	30,000	25,000
	(K'000)	(K'000)	(K'000)	(K'000)
Sales revenue	7,500	10,000	15,000	15,000
Less costs:				
Direct materials	4,500	6,000	9,000	8,955
Direct labour	900	1,200	1,800	2,100
Indirect labour	281	315	469	675
Indirect materials	1,125	1,125	1,125	1,450
Profit	694	1,360	2,606	1,820

Required:

(a) Prepare a flexed budget for the month December 2021. (10 marks)

(b) Calculate revenue, cost and profit variances for December 2021 using the actual figures given and the flexed budget you have prepared. (3 marks)

(c) Explain the meaning of the terms fixed budget and flexible budget and the importance of basing variance calculations on flexible budgeting principles (7 marks)

A division of LM LTD uses process costing to manufacture lubricating oil for bicycles. The following details to process 1 for the month of December 2021.

Inputs into the manufacturing process:

	K'000
Raw materials: 76,500 kgs of raw oil	7,500
Direct labour	1,500
Indirect labour	406
Indirect materials	1,125

Additional Information:

1. The output from the process was 70,000 kgs.
2. The manufacturing process normally causes losses of about 10% of input.
3. The defective production is sold as scrap for K200 per kg.
4. There is no opening work - in - progress.

(d) Prepare the following accounts:

(i) Process account (6 marks)
(ii) Normal loss account (2 marks)
(iii) Abnormal loss/gain account (2 marks)
(iv) Scrap account (2 marks)

(e) LM LTD recently recruited a product development manager tasked to produce different types of bicycles. The Finance Manager has suggested the use of life cycle costing in ascertaining costs and profits relating to bicycles.

Required:

Explain life cycle costing and outline any five (5) benefits associated with it (8 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt any THREE (3) questions in this section.

QUESTION TWO

Tarino Ltd (T Ltd) manufactures two products X and Y which use the same type of material but in different quantities. The production and selling details of the products are as shown in the table below:

Product	**X**	**Y**
Materials/unit	3 Kgs	4 Kgs
Selling price/unit	K100	K120
Variable cost per unit	K80	K100

During the planning meetings for the 2022 budget, the Sales Department presented the estimated maximum sales demand per month for each product as follows:

Product	X	Y
	Units	Units
Maximum demand per month	4,000	5,000

In estimating the number of units to be produced, the Management Accountant advised the budget committee that given the limited quantity of materials to be used to make the products, there was need to come up with a production plan that would maximize profits. The materials used in production were limited to 208,000 Kgs for the year. Tarino Ltd planned to operate at full capacity during the year.

The fixed costs per month were estimated to be at K200,000.

In May 2022, T Ltd received a special order to manufacture 500 units of product Z for a month. The customer is offering K140 per unit of Product Z. The variable cost of producing product Z is K80 per unit. Product Z will use the same amount of kgs of the materials per unit as Product Y. If the special order is accepted the monthly fixed costs will increase by 12% and it will entail foregoing the production of 500 units of product Y.

Required:

(a) Calculate the production plan that maximises profits for the Tarino Ltd (7 marks)

(b) Advise Tarino Ltd as to whether it should accept the special order of producing product Z ignoring non-financial factors, clearly showing the calculation upon which the advice is based. (7 marks)

(c) Calculate the following for the year 2022:

(i) Contribution per mix; (2 marks)

(ii) Breakeven point in terms of the number of mixes; (2 marks)

(iii) Breakeven point in terms of the number of Product X units and Product Y units. (2 marks)

[Total: 20 Marks]

QUESTION THREE

Luapula Fabricators Ltd (LFL), offers fabrication jobs to its clients. It is a company policy to add a 25% profit mark-up on all its jobs. LFL has two (2) production departments, a Machine Shop and an Assembly Shop, and three (3) service departments, Stores, Maintenance and Administration. The Maintenance Department serves the Machine Shop only.
The following data has been provided:

Departments	Machine Shop	Assembly Shop	Stores	Maintenance	Administration
NBV of machine (K)	525,000	75,000	30,000	90,000	30,000
Area (Square metres)	27,500	20,000	5,000	6,250	3,750
Horse Power (%)	85	5	0	10	0
Direct labour hours	875,000	750,000			
Capacity machine hours	225,000				

The annual budgeted overhead costs for the year are:

	Indirect Wages K	Consumable Supplies K
Machine Shop	221,450	77,000
Assembly Shop	40,550	10,500
Stores	20,500	7,000
Maintenance	13,350	10,000
Administration	18,350	8,500
Total	**314,200**	**113,000**

	K
Depreciation of machinery	110,000
Insurance of machinery	20,000
Insurance of building	9,000 (Note 1)
Power	18,000
Light and heat	15,000
Rent and rates	35,250 (Note 2)

Additional Information

1. Because of certain fire risks, the Machine Shop is responsible for a special loading of insurance on the building. This results in a total building insurance cost for the Machine Shop of 50% of the annual premium.
2. The Administration Department is located in a building owned by the company. This building is valued at K200,000 and is charged into costs at a notional rental value of 6% per annum. This cost is in addition to the rent and rates shown above.
3. The values of issues of materials to the production departments are in the same proportions as shown above for consumable supplies.

Required:

(a) Prepare and complete an overhead analysis sheet showing the bases of apportionments of overheads to departments. (15 marks)

(b) Calculate suitable overhead absorption rates for the production departments. No service department costs are to be apportioned amongst other service departments. (2 marks)

(c) The following information relates to Job 630 undertaken by LFL Ltd on behalf of a client, Mwense and Sons Enterprises:

Direct materials	K14,000
Direct labour	K24,800
Machine shop	400 machine hours
Assembly shop	320 labour hours

Calculate the total price to be charged for the current Job 630. (3 marks)

[Total: 20 Marks]

QUESTION FOUR

Lunsemfwa Manufacturers Ltd (LM Ltd) produces a range of components for assembly. LM Ltd has been using marginal costing system since its inception.

During the recent management meeting, the Finance Director suggested that it would be much simpler and more appropriate to use absorption costing rather than marginal costing. The fixed production overheads may be absorbed into production using budgeted production in units. He believes that it could help with current performance reporting. However, the Managing Director, was heard saying that 'why should we change something that is working perfectly?'

The Management Accounts for the month of November, prepared using marginal costing, are shown below:

	K	K
Sales (see Note 1)		159,375
Cost of sales:		
Opening inventory (See Note 2)	6,720	
Production	100,800	
Closing inventory	(2,520)	
Cost of goods sold		(105,000)
Contribution		54,375
Fixed costs:		
- Production overheads (see Note 3)		(22,950)
- Selling and administrative overheads		(7,500)
Profit		23,925

Notes:

1. The average selling price for each component is K4.75.
2. The opening inventory was 2,400 components.

3. The marginal cost per component has remained at the same level since the company began operating.
4. Total fixed production overheads are budgeted to be K275,400 and budgeted production for the year is 324,000 units to be split equally over the twelve month period.
5. Assume that actual fixed production overheads are equal to the budget for November.

Required:

(a) Calculate the production cost per unit using the absorption costing method. (2 marks)

(b) Prepare an income statement for the month of November using absorption costing. (12 marks)

(c) Reconcile the profit using marginal costing with the profit calculated using absorption costing at (b) above. (2 marks)

(d) State four (4) reasons why a company may prefer to use absorption costing rather than marginal costing. (4 marks)

[Total: 20 Marks]

QUESTION FIVE

Mukwa Ltd (M Ltd) manufactures three (3) products , namely, X, Y and Z. These products use the same machines. The budgeted income statements for the three products are as follows:

Product	**X**	**Y**	**Z**
	K per unit	K per unit	K per unit
Sales price	600	450	750
Prime costs	(300)	(225)	(525)
Variable overheads	(150)	(75)	(75)
Fixed overheads	(120)	(126)	(156)
Profit/(loss)	30	24	(6)
Annual sales demand (units)	5,000	7,500	2,500
Machine hours per unit	60	75	48

However, after the budget had been formulated, an unforeseen condition has meant that during the next period the available machine capacity has been limited to 889,500 hours. The Marketing Manager of M Ltd has also disclosed that a one off contract had been agreed with a major customer to supply 7,000 units of product Y during the next period at the current price. These units are included in the annual sales demand budget.

Required:

(a) Determine the profit maximisation production mix and the total maximum contribution that could be earned in the next period ignoring the contract with the major customer. (6 marks)

(b) Calculate the maximum financial penalty that M Ltd would be willing to pay to cancel the contract with the major customer. (4 marks)

(c) Calculate the breakeven point sales units and margin of safety percentage for each product and comment on your findings. (4 marks)

(d) Comment on other factors that M Ltd should consider before cancelling the major customer's contract.

(6 marks)
[Total: 20 Marks]

END OF PAPER

CA 2.2 MANAGEMENT ACCOUNTING SUGGESTED SOLUTIONS

SOLUTION ONE

(a) Flexed budget

Output (bicycles)		Budget 25,000
		K
Sales revenue (w1)		12,500,000
Less:		
	Direct materials (w2)	7,500,000
	Direct labour (w3)	1,500,000
	Indirect labour (w4)	406,350
	Indirect materials (w5)	1,125,000
Profit		1,968,650

Workings:

W1 K7,500,000 ÷ 15,000 x 25,000 =K12,500,000
W2 A variable cost: K4,500,000 ÷ 15,000 x 25,000 = K7,500,000
W3 A variable cost: K900,000 ÷ 15,000 x 25,000 = K1,500,000
W4 A semi-variable cost:

Variable cost per unit = $\frac{\text{change in cost}}{\text{Change in volume}} = \frac{K469{,}000 - K281{,}000}{30{,}000 - 15{,}000}$ = K12.53/ bicycle

Fixed cost per month
Total cost = fixed cost + variable cost
At 30,000 bicycles:
K469,000 = fixed cost per month + K12.53 x 30,000 bicycles
K469,000 = fixed cost per month + K375,900
Fixed cost per month = K93,100
Indirect labour cost at 25,000 bicycles
= K93,100 + (25,000 units x K12.53 per bicycle) = K406,350
W5 Indirect materials are a fixed cost that does not change with volume.

(b) Flexed budget variances December 2021

	Flexed budget	Actual results	Variance
Output (bicycles)	25,000	25,000	-
	K	K	K
Sales revenue (w1)	12,500,000	15,000,000	2,500,000(F)
Less:			
Direct materials (w2)	7,500,000	8,955,000	1,455,000(A)
Direct labour (w3)	1,500,000	2,100,000	600,000(A)
Indirect labour (w4)	406,350	675,000	268,650(A)
Indirect materials (w5)	1,125,000	1,450,000	325,000(A)
Profit	1,968,650	1,820,000	148,650(A)

(c) Meaning of terms

Fixed budget
A fixed budget is a financial expression of a plan of action based upon a single activity level.
Flexible budget
A flexible budget is a financial expression of a plan of action, which by recognising cost behaviour patterns, is designed to change as the volume of activity changes.

Importance of calculating variances from flexible budgets
Variances show the difference (adverse or favourable) between actual results and budgets and are used in measuring and controlling performance. In calculating variances it is important that like is compared with like. This is particularly true in the case of variable costs. If output level is, for example, higher than originally forecast, we would expect variable costs such as direct materials to be higher than we originally anticipated, simply because we have produced more output. By flexing the budget we can allow for changes in costs caused by changes in volume. A variance calculated against the flexed budget will therefore exclude changes caused by changes in volume, leaving only variances due to efficiency and price effects.

(d) Process costing

(i) Process account

	Kgs	Amount		Kgs	Amount
Materials	76,500	7,500,000	Normal loss	7,650	1,530,000
Labour		1,500,000			
Indirect labour		406,000	Output	70,000	9,151,345
Indirect overheads		1,125,000			
Abnormal gain	1,150	150,345			
	77,650	10,681,345		77,650	10,681,345

Workings:
Process cost/kg = (10,531,000 – 1,530,000)/ (76,500 -7,650) = K130.7335/units
Abnormal gain = 1,150 X K130.73 = K150,345
Good output = 70,000 x K130.73 = K9,151,345

(ii) Normal Loss account

	Kgs	Amount		Kgs	Amount
Process account	7,650	1,530,000	Scrap account	7,650	1,530,000
	7,650	1,530,000		7,650	1,530,000

(iii) Abnormal loss/gain account

	Kgs	Amount		Kgs	Amount
Scrap account	1,150	230,000	Process account	1,150	150,345
			Profit		79,655
	1,150	230,000		1,150	230,000

(iv) Scrap account

	Kgs	Amount		Kgs	Amount
Normal loss	7,650	1,530,000	Abnormal gain	1,150	230,000
			Cash account	6,500	1,300,000
	7,650	1,530,000		7,650	1,530,000

e)Life Cycle Costing

Life cycle costing is a technique used in planning costs and profitability. It is an approach that accumulates costs over a product's entire life, rather than calculating them for each accounting period through the product's life. It is used to determine the total expected profitability of a product over its entire life, from its design and development stage, through its market introduction, to its eventual withdrawal from the market.

There are a number of benefits associated with life cycle costing.

(i) It helps management to assess profitability over the full life of a product, which in turn helps management to decide whether to develop the product, or to continue making the product.
(ii) It can be very useful for organisations that continually develop products with a relatively short life, where it may be possible to estimate sales volumes and priceswith reasonable accuracy.
(iii) The life cycle concept results in earlier actions to generate more revenue or to lower costs than otherwise might be considered.
(iv) Better decisions should follow from a more accurate and realistic assessment of revenues and costs, at least within a particular life cycle stage.
(v) It encourages longer-term thinking and forward planning, and may provide more useful information than traditional reports of historical costs and profits in each accounting period.

SOLUTION TWO

a) Production Plan that would maximize profits for Tarino Ltd

i) Benefit/contribution per scarce resource (materials)

Product	X	Y
	K	K
Selling price	100	120
Variable cost	80	100
Contribution per unit	20	20
Contribution per Kg of material	K20	K20
	3 kg	4 kg
	= K6.67/Kg	= K5/Kg

ii) Rank Order of production 1st 2nd

iii) The production plan which maximises profit is:

Product X 48, 000 units per annum (w.1) or 4,000 units per month

1

Product Y 16, 000 units per annum (w.1) or 1,333 units per month

1

Working 1

Total Kgs of materials for the year	208, 000	
1st Product X = [(4, 000 units x 12 = 48, 000 units) x 3kg/unit]	144, 000	
		64, 000
2nd Product Y = (64, 000 kg ÷ 4 kg/unit) = 16, 000 units		64, 000
		0

b) Accepting or rejecting the special order

The relevant information in making the decision are the differential profits from the options:

Manufacturing product Z will entail forgoing production of 500 units of Y.

Differential profits from 500 units

Y	**K**	Z	**K**
Sales (500 x K120)	60, 000	(500 x K140)	70,000
Variable cost (500 x K100)	(50, 000)	(500 x K80)	(40,000)
Contribution	10, 000		30, 000
Additional fixed costs	-	[K200, 000 x 12%]	(24,000)
Profit	10, 000		6, 000

Differential profits = K6, 000 – K10, 000 = (K4, 000)

Advice
The company should NOT accept the order since the profits will reduce by K4, 000 if product Z is produced.

c) Tarino Ltd's breakeven point in units for the year 2022

i) Contribution per unit

	X	Y
Contribution per unit (a) (i)	K20	K20

ii) Contribution per mix

Mix ratio = 48, 000: 16, 000
= 3:1

Contribution per mix = (K20 × 3) + (K20 × 1) = K80

iii) Breakeven point in terms of the number of mixes
= fixed costs/contribution per mix
= (K200, 000 x 12)/K80
= K2, 400, 000/K80
= **30, 000 mixes**

iv) Breakeven point in terms of the number of units of the products

= (30, 000 × 3) = **90, 000 units of X**

= (30, 000 × 1) = **30, 000 units of Y**

SOLUTION THREE

(a) Overheads analysis sheet

	Total	Basis	Machine	Assembly	Stores	Maint.	Admin.
	K		K	K	K	K	K
Indirect wages	314,200	Allocated	221,450	40,550	20,500	13,350	18,350
Consumable supplies	113,000	Allocated	77,000	10,500	7,000	10,000	8,500
Depreciation of machinery	110,000	Book value	77,000	11,000	4,400	13,200	4,400
Insurance of machinery	20,000	Book value	14,000	2,000	800	2,400	800
Insurance of building	4,500	Allocated	4,500				
Insurance of building	4,500	Floor area	-	2,571	643	804	482
Power	18,000	HP hours	15,300	900		1,800	
Light and heat	15,000	Floor area	6,600	4,800	1,200	1,500	900
Rent and rates	35,250	Floor area	15,510	11,280	2,820	3,525	2,115
Notional rent	12,000	As given					12,000
Total	**646,450**		**431,360**	**83,601**	**37,363**	**46,579**	**47, 547**

Apportionment of service departments:

	Machine	Assembly	Stores	Maint.	Admin.
Stores (consumable supplies)	32,879	4,484	(37,363)		
Maintenance (machine hours)	46,579			(46,579)	
Administration (direct labour)	25,602	21,945			(47,547)
	536,420	**110,030**	**0**	**0**	**0**

(b) Departmental Overhead Absorption rates

(i) Machine shop =

= 536,420/225,000 = **K2.38 /** Machine hour

(ii) Assembly shop = 110,030/750,000= **K0.15 /** Direct labour hour

(c) Job 630

	K
Direct materials	14,000
Direct labour	24,800
Overheads:	
Machine shop (400 x K2.38)	952
Assembly (320 x K0.15)	48
Total Costs	39,800
Mark-up (25%)	9,950
Total Price Charged	**49,750**

SOLUTION FOUR

a. Calculation of component cost using absorption costing

	Cost per unit (K)
Variable product cost (w1)	2.80
Fixed production overhead (w2)	0.85
Total production cost per unit (component)	3.65

Workings

1. Variable product cost per component = K6,720/2,400 = K2.80
2. Fixed production overheads per component = K275,400/ 324,000 units = K0.85 / unit

b. Operating statement for the month of November using Absorption costing

	K	K
Sales		159,375
Cost of sales:		
Opening inventory	8,760	
Production	131,400	
Closing inventory (see W1) (900 x K3.65)	(3,285)	
	(136,875)	
Over absorbed overhead (see W2)	7,650	(129,225)
Gross profit		30,150
Selling and administrative overheads		(7,500)
Profit		22,650

Workings

W1 Calculation of changes in inventory units

	Units
Opening inventory (K6,720/K2.80)	2,400
Production (K100,800/K2.80 (see above))	36,000
Closing inventory (K2,520/K2.80)	900

W2 Calculation of Under/Over absorbed overhead

	K
Actual fixed production overhead	22,950
Absorbed fixed production overhead (36,000 units x K0.85)	30,600
Over absorbed overhead	(7,650)

c. Reconciliation of profit figures

	K
Profit per marginal costing	23,925
Adjustment for fixed production overhead absorbed in inventory (2,400 - 900) x K0.85	1,275
Profit per absorption costing	22,650

(d) FOUR reasons why a company may prefer absorption costing to marginal costing.

Any Four of the following reasons:

- Financial accounting requires that absorption costing is used to cost products.
- Absorption costing avoids having to separate costs into their fixed and variable elements.
- Absorption costing does not underestimate the importance of fixed production overheads.
- By calculating and analysing under/over absorbed overheads in absorption costing, inefficient utilisation of resources may be revealed.
- Absorption or full costing is a better basis for calculating selling prices.

SOLUTION FIVE

Part (a)

Calculation of contribution per unit and per limiting factor

Details	X	Y	Z
	K	**K**	**K**
Contribution per unit	150	150	150
Machine hours per unit	÷60	÷75	÷48
Contribution per machine hour	**2.5**	**2**	**3.125**
Ranking	2nd	3rd	1st

	Hours
Available machine hours;	889,500
Make 2,500 units of Z using (48 hrs per unit x 2,500)	(120,000)
Make 5,000 units of X using (60 hrs per unit x 5,000)	(300,000)
Balance	469,500

Units of Y to be produced from balance; 469,500/75 = 6,260 units

Total maximum contribution at this production mix;

Z	K375,000
X	K750,000
Y (6,260 x K150 per unit)	K939,000
Total contribution	**K2,064,000**

Part (b)

Additional units of Y to be produced 740 units (7,000 units - 6,260 units)

Amounts of hours taken from production of X; 740 units x 60 hrs per unit = 44,400 hours

Lost contribution from X (44,400 hrs x K2.5 per hour) = (K111,000)

Extra contribution earned from Y (18,500 hrs x K2 per hour) K37,000

Maximum penalty to cancel contract **(K74,000)**

Part (c)

Details	**X**	**Y**	**Z**
Budgeted units	5,000	7,500	2,500
Breakeven point units (Fixed cost/contribution per unit)	4,000	6,300	2,600
Margin of safety (budget units - breakeven)	1,000	1,200	(100)
Margin of safety %	20%	16%	-4%

Margin of safety outlines the sensitivity of the fall in annual sales demand before the making loses. In the case of Y, a more than 16% fall in budgeted sales units would cause a loss to be incurred.

For product Z, the margin of safety is negative meaning that Z is making a loss. The activity is below the breakeven point.

Part (d)

Other than the financial penalty, management of M Ltd should consider the following;

1. Whether the major customer could agree to a partial delivery of Y this period and the balance delivered in the period when resources are available.
2. Whether the production of the Y could be delayed until the time when resources are available.
3. The possible outsourcing of product Y or machine hours that are limited, through leasing additional machinery.
4. The influence the major customer could have on other customer and also how the relationship could be affected by non-supply of Y.
5. The possibility of future business from the major customer, considering that this contract is one off.
6. The nature of the unforeseen event that has led to a restriction of the capacity and how this could be avoided in the future.
7. The reputational risks of failing to meet customer orders.

Total fixed costs

X: K120 X 5,000 = K600,000 / K150 = 4,000
Y: K126 X 7,500 = K945,000 / K150 = 6,300
X: K156 X 2,500 = K390,000 / K150 = 2,600

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA APPLICATION ADVANCED DIPLOMA IN ACCOUNTANCY

CA 2.3: AUDITING PRINCIPLES AND PRACTICE

THURSDAY 15 SEPTEMBER 2022

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

INSTRUCTIONS TO CANDIDATES

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

2. This paper is divided into TWO (2) sections:
   Section A: One (1) Compulsory scenario question.
   Section B: Four (4) Optional Questions. Attempt any Three (3) questions.

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

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

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

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

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

8. Present legible and tidy work.

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

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

SECTION A

This question is compulsory and must be attempted

QUESTION ONE – COMPULSORY

You are an Audit Manager in your firm of accountants and you are in charge of the audit of three (3) of your firm's audit clients.

Your firm performs audits following a risk based approach to auditing. This means that the audit should pay more attention to the risky areas. By following this method, the risk of undetected misstatements is reduced and the opinion to be arrived at will be appropriate under the circumstances. An Audit Senior who recently joined the firm is concerned that your firm only tests samples of transactions and balances and based on the sample results concludes for the financial statements as a whole. He previously worked for a small auditing firm and their clients were few medium sized companies with few transactions and the firm tested all balances and transactions. He is worried that sampling risk is high in the case of your firm and thinks that inappropriate audit opinions may be reached as a result.

The following information relates to each of the three (3) clients whose working papers you are reviewing:

Mukumpu Ltd:
The working papers of the audit of the financial statements of Mukumpu Ltd contain a schedule of uncorrected misstatements. A total amount of K1.5million is the net of uncorrected misstatements for the current year. The Audit Senior in charge of this audit requested management to correct these uncorrected misstatements but management refused to do so. He has recommended that a disclaimer of opinion should be issued in view of management's refusal to amend the financial statements.

The financial statements of Mukumpu Ltd include an amount of K250,000 being a warranty provision for sales made during the last month of the year. The company undertakes to repair any defects to products supplied within a period of two (2) months of purchase.

Musuku Ltd:
The draft financial statements of Musuku Ltd contain a provision for a legal case against the company by the government department responsible for the environment. The company was sued for disposing of hazardous materials in the drainage system contrary to regulations. The company is disputing and the case is still in court at the end of the financial period. A provision of K2.3 million was made in the financial statements in case the company lost the case in court.

Management made adequate disclosure in the financial statements regarding the provision and the Audit Senior suggested that the matter should be included in the Other matter paragraph in the audit report because he considers this matter important to the users of the financial statements.

Other than for the above matter, the audit working papers show that the audit team obtained sufficient appropriate audit evidence upon which the opinion will be based. The Audit Senior in charge of this audit suggested that an unmodified opinion should be issued.

Mukuyu Ltd:
A review of the revenue section of the working papers of the audit of the financial statements of Mukuyu Ltd shows that revenue was overstated by K1.5million. This arose because of cut off problems at the year end. Management of Mukuyu Ltd refused to correct this and argued that the amount involved was not material. In the view of the Audit Senior in charge of this audit the amount is material but not pervasive to the financial statements. He suggested that an adverse opinion will be appropriate.

The draft statement of financial position of Mukuyu Ltd contain a figure of K150million being the net bank balance at the period end. The company has four (4) bank accounts with different banks and except for one which has an overdrawn balance the rest have positive bank balances.

Required:

(a) Explain the meaning of sampling risk and non-sampling risk in the audit of financial statement. (6 marks)

(b) Explain the responsibilities of the auditor with regards to the uncorrected misstatements in the financial statements of Mukumpu Ltd and explain the impact on the audit opinion. (4 marks)

(c) Evaluate the information for the three (3) audit clients of your firm and comment on the suggestions made by the Audit Seniors and make recommendations as necessary. (12 marks)

(d) Explain four (4) audit procedures you expect to find in the working papers that you are reviewing for each of the following:

   (i) The warranty provisions in the draft financial statements of Mukumpu Ltd. (6 marks)

   (ii) The amount provided for the legal case for Musuku Ltd. (6 marks)

   (iii) The bank balance in the financial statements of Mukuyu Ltd. (6 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt any THREE (3) questions in this section.

QUESTION TWO

You are an Audit Manager in Lukanga Accountants and you are responsible for the financial statements audit of Chembe Ltd.

Chembe Ltd buys cotton from farmers in Petauke and sorts it into different grades prior to selling it to commercial and domestic customers. The working for cost of sales included in the draft statement of profit or loss for the year ended 30 September 2021 shows purchases for cotton amounting to K112 million. Preliminary assessment indicates that the purchases figure could be grossly overstated. Internal auditors recently detected a number of fraudulent activities regarding the purchases of cotton.

The first planning meeting will be held with the audit team next week. The Engagement Partner has asked you to prepare notes on the techniques which the audit team will use when auditing purchases of cotton.

The audit of the financial statements of Chembe Ltd for the year ended 30 September 2021 is almost complete. However, an assessment of going concern done by the audit team indicates that the company is a going concern but a material uncertainty exists. The Audit Senior performing the final review is in agreement with this assessment.

Required:

(a) Making reference to the information given in respect of Chembe Ltd:

(i) Explain the internal controls you expect to be in place in the purchases and inventory systems. (6 marks)

(ii) For each internal control in (a) (i) above, suggest an appropriate test of control. (6 marks)

(b) Explain the external auditor's responsibilities regarding prevention and detection of fraud. (4 marks)

(c) Describe the impact on the audit report of Chembe Ltd if the auditor believes the company is a going concern but a material uncertainty exists. (4 marks)

[Total: 20 Marks]

QUESTION THREE

You work for an auditing firm as an Auditor. As part of the work as external auditors, the Audit Manager is reviewing the inventory count instructions sent by Mansa Plc, an audit client. The audit of the financial statements for Mansa Plc for the year ended 30 June 2022 is about to start.

Mansa Plc is a large company involved in the manufacture of various pesticides. It has a running contract with the government to supply pesticides for army worms to all small-scale farmers at subsidised prices. The company's production process and supporting functions are computerised. The audit team is planning to use Computer-Assisted Audit Techniques (CAATs).

The Audit Manager noticed that the following instructions may need amendment:

1. The Head of Procurement and Stores will be in charge of the inventory count.
2. The counters will use pencils to record the inventory counted on inventory sheets.
3. Two independent counts shall be performed.
4. All inventory items will be counted systematically.
5. At the end of the inventory count, reconciliations with inventory records will be performed and any differences will be investigated before effecting any necessary adjustments.

He requested you to suggest any amendments which may be required so that he can revert back to Mansa Plc.

Required:

(a) Explain what is meant by Computer Assisted Audit Techniques (CAATs) and give three (3) examples of its use when performing auditing procedures. (4 marks)

(b) Explain the impact of auditing in a computerized environment on the overall objectives and scope of an audit. (3 marks)

(c) State three (3) reasons why it may be appropriate to use Computer Assisted Audit Techniques (CAATs) on the audit of the financial statements for Mansa Plc for the year ended 30 June 2022. (3 marks)

(d) Evaluate the inventory count instructions given in the scenario and suggest any amendments where necessary. (10 marks)

[Total: 20 Marks]

QUESTION FOUR

Kwacha Stretcher is a large bookstore situated in Lusaka. It mainly imports and sells quality study manuals and revision kits for accountancy students.

You are an Audit Senior in Rhino Chartered Accountants and you are responsible for the audit of the financial statements of Kwacha Stretcher for the year ended 31 December 2021. The field work is almost complete and you are only remaining with the following:

1. Auditing cash and bank balances
2. Auditing the valuation of inventory

Cash and bank balances, and inventory are material figures in the financial statements of Kwacha Stretcher.

Cash and bank balances
No audit work has been done on cash and bank balances. Because of the limited time available between review and signing of the audit report, the Audit Senior has suggested that the audit team must simply get a letter of representation from management.

Valuation of inventory
Kwacha Stretcher conducted an inventory count on 31 December 2021. The inventory count was successfully conducted and the Audit Manager was satisfied with the way it was conducted. No cut-off errors were identified and the auditors checked that the final inventory sheets were properly compiled from the count records and that book inventory was appropriately adjusted.

Kwacha Stretcher valued the inventory at cost computed by deducting the normal gross profit margin from the selling price. The selling price used is that indicated on the books in the stores when it was counted.

Required:

(a) Define a letter of representation and state any two (2) basic elements of a letter of representation. (3 marks)

(b) Discuss the reliability of a letter of representation as audit evidence in the audit of bank and cash as suggested by the Audit Senior. (5 marks)

(c) State and explain the purpose of six (6) procedures that you should use to identify the inventories which may be worth less than cost. (12 marks)

[Total: 20 Marks]

QUESTION FIVE

You are an Audit Senior in Southrise Accountants, a firm of chartered accountants. The Directors of Kasempa Ltd have nominated Southrise Accountants to accept appointment as auditors.

Kasempa Ltd is a family company which is involved in the manufacture of copper components required for electric cars. These are mainly sold abroad and 60 days credit is allowed. This will be the first time for Southrise Accountants to audit a company in this industry. The Finance Director left last year and is yet to be replaced. Profits have declined in the last three (3) years and this has eventually led to serious liquidity problems. The previous auditors resigned last month.

The Partner who is in charge of client acceptance asked you to perform client screening procedures. Depending on the findings, the company will be put forward for approval. The Engagement Partner will be required to complete a client acceptance form which will be submitted to the Partner who is in charge of client acceptance. The acceptance form will be accompanied by the findings and relevant documentation.

If the appointment is accepted, you will be required to draft an engagement letter before the audit commences. Both Kasempa Ltd and Southrise Accountants will be required to sign the engagement letter.

Required:

(a) Describe five (5) basic factors to consider when screening Kasempa Ltd.
(10 marks)

(b) Explain why an engagement letter is important to both the client and the auditor.
(6 marks)

(c) Suggest the action(s) to take if Kasempa Ltd does not sign the engagement letter.
(4 marks)
[Total: 20 Marks]

END OF PAPER

CA 2.3 AUDITING PRINCIPLES AND PRACTICE SUGGESTED SOLUTIONS

SOLUTION ONE

(a) Meaning of sampling risk:

Sampling risk is the risk that the auditor will issue an inappropriate audit opinion for the reason that they based their opinion based on sample results.

For example, if auditors tested 100% of the population they would have reached a different opinion/conclusion.

Meaning of non-sampling risk:

This is the risk that the auditor will issue an inappropriate opinion for reasons other than the size of samples by the auditor. For example, the auditor using inappropriate audit procedures or misinterpretation of audit evidence thereby failing to recognize a misstatement or deviation.

(b) Responsibilities of the auditoron uncorrected misstatements:

ISA 450 *Evaluation of misstatements identified during the audit* gives guidance in the area of material misstatements.

The standard guides as follows:

- The auditors should communicate the uncorrected misstatements and their effect to those charged with governance with material misstatements being identified individually.
- The auditors in this case should get the make-up of the net amount of K1.5 million of uncorrected misstatements and report these to the management of Mukumpu Ltd.
- The auditor will be required to request the management of Mukumpu Ltd to correct the uncorrected misstatements.

Impact of uncorrected misstatements on the audit opinion:

The refusal by management of Mukumpu Ltd to correct the uncorrected misstatements will have an impact on the audit opinion.

The auditor will require comparing the net uncorrected misstatements with the materiality figure determined according to ISA 320 *Materiality in planning and performing an audit.* In the event that aggregate of uncorrected misstatement is more than the materiality level then a modified opinion will be appropriate.

(c) Evaluation of suggestions by the Audit Seniors:

Mukumpu Ltd:

The audit observation is the refusal by management to amend the financial statements in view of the uncorrected misstatements.

The impact by management to make the corrections could have an impact on the financial statements and the opinion of the auditor. There are two possible factors that must be considered in order to reach a correct opinion as follows:

- If the uncorrected misstatements of K1.5 million are material to the financial statements but not so significant to impact on decisions made by users of the financial statements, the appropriate audit opinion is a qualified opinion.
- If on the other hand, it is concluded the uncorrected misstatements of K1.5 million are both material and pervasive, then the appropriate opinion is an adverse opinion concluding that the financial statements do not show a true and fair view.

Conclusion:
The suggestion by the Audit Senior that a disclaimer of opinion would be appropriate is incorrect. A disclaimer of opinion can only be issued if there is a limitation of scope. This is where the auditor is not able to obtain sufficient appropriate audit evidence.

Even in this case a disclaimer would only be appropriate if the refusal to correct is material and pervasive to the financial statements otherwise a qualified will be appropriate.

Musuku Ltd:
The Audit Senior has made two (2) recommendations.
The first recommendation is that of including the issue of the provision which has been adequately disclosed in the financial statements in the Other matter paragraph of the audit report.

This suggestion is incorrect because the other matter paragraph is used by the auditors to report on matters that are not contained in the financial statements.

In this case the financial statements have disclosed this matter adequately in the financial statements and if auditor wishes to refer to it he should include it in the Emphasis of matter paragraph. ISA 706 *Emphasis and other matter paragraphs in the independent auditor's report* gives guidance on the use of these two paragraphs.

The second recommendation relates to the opinion. The suggestion that the opinion should be unmodified is correct. A matter that is contained in the Emphasis of matter paragraph does not result in a modified opinion.

Mukuyu Ltd:
The Audit Senior has recommended an adverse opinion for the audit of the financial statements of Mukuyu Ltd.

To arrive at an adverse opinion, the matter of concern to the auditor should be material and pervasive to the financial statements. The question states that the matter is material but not pervasive and therefore the recommendation of an adverse opinion is inappropriate.

The opinion that should be issued in this case is a qualified opinion which is given when the matter of concern is material but not pervasive to the financial statements.

(d)(i) Audit procedures for warranty provision:

- Obtain explanations from management on how they arrived at the warranty provision.
- Review the previous year provision and compare with the actual expenditure in the current year in order to assess management's ability to make accounting estimates.
- Examine post year repairs related to previous year sales which will give evidence of the provision made at the year end.
- Obtain written representations from management acknowledging that it believes the warranty provision is adequate.
- Confirm that the warranty provision meets the conditions in IAS 37 for setting up a provision.

(ii) Audit procedures for legal case provision:

- Enquire from management the basis for the amount provided.
- Obtain written representations from management confirming that it believes the provision is adequate.
- Discuss the matter with the in-house legal representative and get their views the likely outcome of the case.
- Confirm that the criteria for setting up a provision under IAS37 is met.
- In case the matter is concluded in the following year compare the amount paid with the provision made at the year end.

(iii) Audit procedures for bank balance:

- Obtain bank confirmations for all the accounts held.
- Re-perform bank reconciliations and examine reconciling items
- Verify the bank balances with the reply to the bank letter and bank statement.
- Consider whether there is a legal right of set off of the overdraft against positive bank balances.
- Identify whether any of the accounts are secured on the assets of the company by discussing with management and reading board minutes.
- Inspect the cash book and bank statements before and after the year end for exceptional entries or transfers which may have a material effect on the balance in the financial statements.

SOLUTION TWO

(a) Internal controls and tests of controls:

(i) Controls	(ii)Tests of control
(1) Authorisation procedures and policies in place for ordering cotton.	Inspect policies and procedures and inquire about them.
(2) Segregation of duties.	Observe and evaluate segregation of duties.
(3) Purchase orders raised for each purchase and authorised by appropriate senior personnel.	Examine a sample of purchase orders to ensure they have been appropriately authorised.
(4) Approved purchase order for each receipt of cotton.	For a sample of orders, examine the goods received note (GRN) and match it with the order.
(5) Staff receiving cotton check for relevant approved purchase order.	Observe receipt of cotton by staff to confirm whether the check is done.
(6) Stores Clerks sign for cotton received.	Inspect a sample to confirm whether Stores Clerks undertake this check.
(7) Purchase orders and GRNS are matched with the suppliers' invoices.	Examine supporting documentation for a sample of invoices.

(b) External auditor's responsibilities regarding the detection of fraud

ISA 240 *The Auditor's Responsibilities relating to Fraud in an Audit of Financial Statements* provides guidance to auditors in this area. The external auditor is responsible for obtaining reasonable assurance that the financial statements are free from material misstatement, whether caused by fraud or error. The external auditor is also responsible for maintaining professional skepticism throughout the audit, considering the possibility of management override of controls, and recognizing that audit procedures effective for detecting errors may not be effective for detecting fraud.

(c) Impact on the audit report of Mongu Plc if the auditor believes the company is a going concern but a material uncertainty exists

ISA 570 *Going Concern* gives detailed guidance in this area.

If the financial statements are prepared on the going concern basis of accounting and disclosure of the material uncertainty is adequately made, then the auditor's opinion would be unmodified, but the auditor's report would include an explanatory paragraph titled 'Material Uncertainty Related to Going Concern'.

However, if the financial statements are prepared on the going concern basis of accounting but disclosure of the material uncertainty is not adequately made, then the auditor's opinion would be modified, using either a qualified opinion or adverse opinion depending on whether this is pervasive.

SOLUTION THREE

(a) Computer Assisted Audit Techniques (CAATs):

Computer assisted audit techniques (CAATs) are the applications of auditing procedures using the computer as an audit tool.

Examples of the use of CAATs when performing auditing procedures include:

- Testing of details of transactions and balances
- Performing analytical procedures
- Testing of computer information system controls.
- CAATs can be used in the extraction of sample items for testing.

(b) Impact on the overall objectives and scope of an audit when conducted in a computerized environment:

The overall objectives and scope of an audit do not change when an audit is conducted in a computerized environment. However, the application of auditing procedures may require auditors to consider techniques that use the computer as an audit tool (CAATs). The use of manual audit techniques will not be effective.

(c) Reasons why it may be appropriate to use Computer Assisted Audit Techniques (CAATs) on the audit of the financial statements for Mansa Plc for the year ended 30 June 2022:

- The company's production process and supporting functions are computerized and therefore CAATs will allow the audit team to test programme controls and general internal controls associated with computers.
- Mansa Plc is a large company and CAATs will allow the audit team to test a greater number of items more quickly and accurately.
- The use of CAATs will be cost-effective.

(d) Evaluation of the inventory count instructions

1. The Head of Procurement and Stores in charge of the inventory count – The Head of Procurement and Stores is overall in charge of the inventories and has the required experience. If he is put in charge, however, it will be easy to conceal any wrong-doing. He will have an opportunity to either directly or indirectly exercise undue influence on the inventory counters. An independent senior person should be put in charge of the inventory count, preferably a senior person in the finance department.
2. The counters will use pencils to record the inventory counted on inventory sheets – The use of pencils will make it easy to correct any errors. However, this will also provide an opportunity for fraudulent amendments which may go unnoticed. Inventory sheets should be completed in ink and signed for.
3. Two independent counts shall be performed – This is one (1) of the effective ways used in inventory counting. It could provide more reliable results if conducting properly. However, it could prove to be slow and expensive. It is advisable to consider teams of two (2) counters, with one (1) counting and the other checking.

4. All inventory items will be counted systematically – This is an appropriate instruction which will ensure that all inventories are counted. It will also assist in monitoring progress and ensure the inventory count is completed on time.
5. At the end of the inventory count, reconciliations with inventory records will be performed and any differences shall be investigated before effecting any necessary adjustments – This is an appropriate instruction and it will enable management take the necessary action which will assist in minimizing undesirable behaviors.

SOLUTION FOUR

(a) Definition of a letter of representation and basic elements of a letter of representation:

A letter of representation is a letter addressed to the auditor concerning material decisions made by management in the production of the financial statements. The statements in this letter should always be supported by other corroborative evidence, but it remains a crucial form of evidence at the completion of any audit.

The basic elements of a letter of representation are:

- Addressed to the auditors
- Signed by the members of the Board who have primary responsibility for the financial aspects of the enterprise
- Discussed and approved by the Board before it is signed
- Produced on the company's own note paper
- Not be a standard form
- Drafted with the assistance of management
- Contents restricted to material matters involving judgement, on which little other evidence is likely to be available
- Recognize management responsibilities
- Dated on or before the date of the audit report and after audit work is completed.

(b) Reliability of a letter of representation as audit evidence in the audit of cash and bank

ISA 580 *Written Representations* gives detailed guidance in this area.

The audit of bank and cash does not require a letter of representation. This is basically factual and auditor must be request for cash certificate and bank letter. A bank confirmation letter provides good evidence of the company's bank accounts as the bank confirms this information in writing.

A bank letter cannot necessarily be relied on to provide complete or accurate information. Most banks place a disclaimer on the letter of 'errors and omissions accepted' indicating that the auditor must review this evidence against other cash and bank evidence obtained. However, a bank letter is relatively more reliable than a letter of representation which the Audit Senior is suggesting. Written representations are used to support other audit evidence and on their own cannot be sufficient appropriate evidence especially where other sources of evidence are available.

(c) State and explain the purpose of six (6) procedures that you should use to identify inventory which may be worth less than cost:

Audit procedures	Reasons for procedure
(1) Compute inventory turnover ratios for the inventory items held in stock	To identify slow moving inventory that may be worth less than cost.
(2) Review the inventory sheets	To identify inventories described as sub-standard or recorded as damaged.
(3) Obtain the latest prices for inventories	To compare with the selling prices used in the valuation of inventories.
(4) For a sample of inventory items, recalculate the gross margins.	To confirm that the normal margins have been used.
(5) Discuss with management and sales personnel the existence of books which are unpopular.	To identify slow moving inventory that may be worth less than cost.
(6) Review the trade press or other sources regarding the books in store, especially taxation manuals and revision kits.	To see whether any of the books are out of date and hence less than cost.
(7) Review any markdowns on inventories.	To check whether the revised price is below cost.
(8) Review the sales proceeds for sales of selected items post year end.	To establish the price at which the items were sold which gives evidence of the net realisable value that should have been used in comparing net realisable value and cost at the period end.

SOLUTION FIVE

(a) Basic factors to consider when screening Kasempa Ltd

- Management integrity – This will be very important given that Kasempa Ltd is a family company. It is possible that key family members dominate decision making in Kasempa Ltd. The control environment may be poor.
- Risk – Kasempa Ltd may be a high risk client given that the Finance Director left and is yet to be replaced. In addition, performance in the last three (3) years has been bad.
- Relationship with Kasempa Ltd – It will be important to establish whether the relationship will be long-term or not. A long-term relationship could be favored since Southrise Accountants will be assured of income and this will also allow the audit work to be enhanced by better knowledge of Kasempa Ltd and thereby offer a better service.
- Ability to perform the work – Southrise Accountants must have the resources to perform the work properly, as well as any specialist knowledge or skills. It will be important to assess the impact on existing engagements in terms of staff time and the timing of the audit.
- Engagement economics – Expected fees from Kasempa Ltd should reflect the level of risk expected. However, Southrise Accountants may also want to gain entry into this industry.
- Contacting the previous auditors – Southrise Accountants must establish the reasons/circumstances behind the resignation. This will enable the firm to make an informed decision.

(b) Importance of an engagement letter

ISA 210 *Agreeing the Terms of Audit Engagements* gives detailed guidance in this area. The engagement letter is the written terms of an engagement in the form of a letter. The letter of engagement is important for both auditor and client mainly because:

- It is a professional requirement
- It sets out the respective responsibilities and thus reduces the likelihood of misunderstandings arising at a future date
- It also ensures that the client understands what an audit is and how it differs from other services provided by the auditor
- Allows the auditor to detail any other services he can offer
- It explains the basis on which fees are calculated and when they become payable.

(c) Suggested action(s) to be taken if Kasempa Ltd does not sign the engagement letter :

- Send another engagement letter
- Contact the acting Finance Director
- If issue remains unresolved, contact those charged with governance
- If issue still remains unresolved, withdraw from the engagement.

END OF SOLUTIONS

CA-ZAMBIA PROGRAMME EXAMINATIONS

CA APPLICATION ADVANCED DIPLOMA IN ACCOUNTANCY

CA 2.4: TAXATION

THURSDAY 15 SEPTEMBER 2022

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

INSTRUCTIONS TO CANDIDATES

1. You have fifteen (15) minutes planning 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 Question.
   Section B: Four (4) Optional Questions. Attempt any THREE (3) questions

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

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

5. **Cell phones** are **NOT** allowed in the examination room.

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

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

8. Present legible and tidy work.

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

10. A Taxation table is provided from page 2 to page 6 of the question paper.

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

TAXATION TABLE

Income Tax

Standard personal income tax rates

Income band	Taxable amount	Rate
K1 to K54,000	first K54,000	0%
K54,001 to K57,600	next K3,600	25%
K57,601 to K82,800	next K25,200	30%
Over K82,800		37.5%

Income from farming for individuals

K1 to K54,000	first K54,000	0%
Over K54,000		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%

Income from farming for individuals

K1 to K54,000	first K54,000	0%
Over K54,000		10%

Company Income Tax rates

On income from manufacturing and other	30%
On income from farming	10%
On income of Banks and other Financial Institutions	30%
On income from mineral processing	30%
On income from mining operations	30%
On income from manufacture of products made out of copper cathodes	15%

Mineral Royalty

Mineral Royalty on Copper

Range of Norm Price	Mineral Royalty Rate
Less than US$4,500	5.5% of norm value
From US$4,500 to less than US$6,000	6.5% of norm value
From US$6,000 to less than US$7,500	7.5% of norm value
From US$7,500 to less than US$9,000	8.5% of norm value
From US$9,000 and above	10% of norm value

Mineral Royalty on other minerals

Type of mineral	Mineral Royalty Rate
Base Metals (Other than Copper, Cobalt and Vanadium)	5% of norm value
Cobalt and Vanadium	8% 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 K20,000)**

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 4%

Rental Income Tax

Annual Rental Income	
K800,000 or below	4%
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 cc but not exceeding 2500 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**	37,086	28,432	13,907	10,662

ignition internal combustion piston engine

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</u> – (COMPULSORY)

Namwala Plc is a company engaged in manufacturing operations. At the start of the tax year 2022, the directors computed the provisional income tax for the company to be K4,800,000. The quarterly instalments of provisional income tax were computed and paid properly on the relevant due dates during the year. However, the return of provisional income relating to the tax year 2022 was submitted on 10 July 2022.

The following extract of the statement of profit or loss has been obtained from the financial statements of Namwala Plc for the year ended 31 December 2022:

	Notes	K	K
Gross profit			38,385,460
Other income:			
Loan note interest received (net)		224,400	
Dividends (net)		127,850	
Consultancy fees(net)		323,000	
			675,250
			39,060,710
Expenses:			
Depreciation		486,000	
Bad debt expense	(1)	171,700	
Employee's benefits	(2)	17,864,000	
Entertainment expenses	(3)	255,000	
Legal fees	(4)	352,100	
General operating expenses	(5)	5,197,400	
			(24,326,200)
Profit for the year			14,734,510

The following additional information is available:

Note 1: Bad debt Expense

	K		K
Trade debts written off	296,000	Balance b/f	
Loans to suppliers written off	164,000	- Specific provision	304,800
Loans to employees written off	130,000	- General provision	315,600
Balances c/d		Trade debts recovered	160,000
- Specific provision	165,500	Employee's loans recovered	90,000
- General Provision	286,600	Profit or loss	171,700
	1,042,100		1,042,100

Note 2: Employee's benefits

These comprised staff wages of K16,704,000, employer's National Health Insurance Management Authority (NHIMA) contributions of K168,000, employers National Pension Scheme Scheme Authority (NAPSA) contributions of K840,000, director's golf club subscriptions of K56,000 and lease rentals for a house leased by the company on behalf of the Finance Director amounting to K96,000. The Finance Director's gross annual emoluments are K820,000. This amount is included within the figure for staff wages above. The leased house has a market value of K1,500,000. Also included within staff wages are the gross earnings for the Managing Director of K960,000 who is accommodated in a company owned house which had a market value of K2,800,000 in the tax year 2022.

Note 3: Entertainment expenses

These included, entertainment expenses for the company's Board of Directors of K166,000, gifts of Namwala Plc's branded T-shirts to customers (costing K200 each) totalling K28,400 and Christmas gifts to staff members of food and drinks (costing K150 per employee) totalling K60,600.

Note 4: Legal fees

These included legal fees for recovery of loans from former employees of K140,000, legal fees for preparing staff contracts of K46,200, legal fees in connection with acquisition of land to be used for business purpose of K76,500 and Legal fees in connection with trade debt collection of K89,400.

Note 5: General operating expenses

These comprised loss on disposal of assets of K64,200, theft of money by the company's Finance Manager of K600,000, theft of cash by the company's cashier of K17,400, business insurance of K45,000, accountancy expenses of K155,000, donations of K350,000 to political parties, and a donation of K850,000 to an approved public benefit organisation, Namwala plc received free advertising space in the organisation's monthly magazine. The remaining balance represents general allowable business expenses.

Note 6: Buildings

The company purchased a second-hand building during the year at a cost of K6,250,000 (VAT exclusive) which was brought into use on 1 March 2022. The total purchase cost of K6,250,000 comprised land with a cost of K1,250,000, a staff canteen with a cost of K1,124,000, a showroom with a cost of K300,000, a factory with a cost of K3,250,000 and administrative offices with a cost of K326,000.

Note 7: Implements, plant and machinery

At 1 January 2022, the company held the following implements, plant and machinery, which were acquired as shown below:

Date purchased	Asset	Original cost (VAT inclusive)
		K
3 February 2019	Pool car	127,600
5 March 2020	Office furniture	139,200

Transactions in the year ended 31 December 2022 were as follows:

Disposals

Date	Asset	Proceeds (VAT inclusive)
		K
11 March 2022	Disposal of office furniture for	130,000
16 April 2022	Disposal of pool car (2,000cc) for	30,000

Acquisitions

Date	Asset	Cost (VAT exclusive)
		K
9 June 2022	Purchase of Toyota Fortuner car (3000cc)	450,000
14 August 2022	Purchase of Delivery truck	550,000
30 October 2022	Construction of new manufacturing plant	1,380,000

The Toyota Fortuner car is used on a personal to holder basis by the Managing Director whose private use of the car is 30%.

Required:

(a) State the date when Namwala Plc should have submitted the return of provisional income relating to the tax year 2022 and compute the penalties arising on the late submission of the return. (4 marks)

(b) Prepare a computation of the company's capital allowances for the tax year 2022 in respect of:

(i) Buildings (7 marks)

(ii) Implements, plant and machinery (10 marks)

(c) Calculate the tax adjusted business profit for Namwala Plc for the tax year 2022. (12 marks)

(d) Calculate the Company income tax payable by Namwala Plc for the tax year 2022. (7 marks)

[Total: 40 Marks]

SECTION B

Attempt any three (3) questions in this section.

QUESTION TWO

Mr. Jabesi Banda is employed on a three (3) year contract by Kumbele Limited which commenced on 1 April 2022 as an Assistant Quality Control Manager on the following terms:

Basic monthly salary	K18,000
(Payable at the end of each month)	
Monthly housing allowance	20% of his basic monthly salary
Transport allowance	5% of his basic monthly salary

In April 2022, the employer paid him K3,400 to purchase a workplace uniform. He purchased the uniform at a price of K2,300 and did not refund the balance.

During his employment with Kumbele Ltd in the tax year 2022, the company paid for the medical expenses incurred by Banda for the medical treatment of his family members amounting to K24,300, under a medical scheme operated by the company on his behalf.

On 1 September 2022, Banda was promoted to the position of Quality Control Manager and his salary was adjusted upwards to K20,500 per month with effect from that date.

Banda lives in his own accommodation. Kumbele Ltd reimbursed him the cost of the water and electricity bills he incurred in relation to the house during his period of employment with the company in the tax year 2022, which totaled K5,200 and K12,100 respectively, after producing the relevant supporting documentation.

Banda uses his own personal motor car which he acquired at a cost of K280,000 two (2) years ago to travel from his home to the work place. He incurred motor car expenses of K1,200 travelling between his home and the premises of Kumbele Ltd during the tax year 2022. His duties commence when he reports for work at 08:00 every day.

Jabesi Banda incurred the following expenses in the tax year 2022:

(1) Subscriptions of K2,500 to the Institute of Quality Controllers.
(2) NAPSA contribution at 5% of his gross earnings.
(3) Donations of K3,000 to an approved public benefit organisation.
(4) Pay As You Earn deducted by the employer amounting to K32,500.

During the year, Jabesi received the following investment income:

	K
Management and consultancy fees (net)	12,750
Bank interest (gross)	10,000
Dividends from a Zambian company (net)	7,500
Copyrights royalties (net)	4,250

Required:

(a) Explain the tax consequences of paying income tax deducted from emolumentsunder the Pay As You Earn system late. (2 marks)

(b) Explain the actual receipts basis as it applies to taxation of emoluments from employment. (3 marks)

(c) Calculate the income tax payable by Jabesi Banda for the tax year 2022.You should indicate in your computation by the use of (0) any items of income or benefits which are not taxable. (15 marks)

[Total: 20 Marks]

QUESTION THREE

You are employed in a firm of Chartered Accountants and you have been provided with the following information relating to your clients.

Tumelo Tiyonge

Tumelo intends to commence a retail business on 1 January 2022. She estimates the turnover from her business to be K61,000 per month throughout the tax year 2022. Purchases are expected to be K30,000 per month. Other operating expenses will average K16,800 per month. She is not sure whether she will be required to pay turnover tax or income tax for the tax year 2022.

Philip Chiko

Philip wishes to commence a wholesale business. In order to raise capital for his proposed business, he entered into the following capital transactions during the year ended 31 December 2022:

(1) On 22 January 2022, he sold farm land for cash proceeds of K230,000. He acquired this farm land in 2015 at a cost of K80,000. The open market value of the land was determined to be K210,000 by the Government valuations department. He incurred professional fees amounting to K10,000 to complete the sale transaction.

(2) On 10 March 2022, he sold a residential plot for gross proceeds of K100,000. The plot had an open market value of K130,000 as determined by the Government valuations department. The plot was acquired at a cost of K50,000 in 2017. Transaction costs incurred amounted to K11,000.

(3) On 20 April 2022, he sold a Toyota Hilux Double Cab Van at a price of K270,000. He paid K14,000 for repairs and change of ownership. He acquired this vehicle in 2018 at a cost of K300,000. The open market value of the motor vehicle was K250,000.

(4) On 3 May 2022, he sold a supermarket store to his daughter at a price of K100,000. The supermarket store was built in 2018 at a cost of K350,000. The open market value of the

store at date of sale was determined to be K550,000. Transaction costs amounted to K10,000.

(5) On 28 May 2022, he sold 10,000 equity shares he held in FGH Limited, a Zambian resident private company, for K15 per share. The nominal value of each share is K1. The open market value of the shares was determined to be K14 per share using the approved share valuation methods. He acquired the shares at a cost of K6 per share in 2014.

(6) On 7 June 2022, he sold 5,000 equity shares he held in TGH Plc, a Zambian resident company listed on the LuSE, for K8.50 per share. The shares have a nominal value of K1 each. He acquired these shares in 2019 at a cost of K4.80 per share. The shares were quoted on the Lusaka Securities Exchange at K9.10 per share.

Required:

(a) In relation to Tumelo Tiyonge:

(i) Explain any four (4) persons who are not required to pay turnover tax. (4 marks)

(ii) Explain whether Tumelo will be chargeable to normal personal income tax or turnover tax for the tax year 2022. Your answer should include a computation of the amount of tax payable by Tumelo for the tax year 2022. (4 marks)

(b) In relation to Philip Chiko:

(i) Explain the meaning of property in the context of property transfer tax and give any two (2) examples of categories of property under the Property Transfer Tax Act. (2 marks)

(ii) Explain the property transfer tax implications arising on the capital transactions made by Chiko. Your answer should include a computation of property transfer tax paid on each transaction if any. (10 marks)

[Total: 20 Marks]

QUESTION FOUR

You are employed in a firm of Chartered Accountants. Your firm has been approached to provide training at a workshop organized by an association which represents the Small and Medium Enterprises in the agricultural sector. The training will cover the following matters:

(1) Tax avoidance and tax evasion.
(2) Due dates for payment of tax and submission of returns.
(3) Penalties for non-compliance.

Your supervisor has asked you to prepare short notes for the training on the issues highlighted above.

Your firm recently employed graduates as trainees in various departments of the firm. Your supervisor has additionally asked you to prepare notes on professional code of ethics to be used in a training workshop for the graduate trainees.

Required:

(a) Prepare brief notes to be used in the training workshop for the representatives of the Small and Medium Enterprises addressing the following maters:

(i) Explaining the differences between tax avoidance and tax evasion. (5 marks)

(ii) Stating the due dates for the submission of turnover tax returns and self-assessment income tax returns. (2 marks)

(iii) Explaining the consequences for late submission of returns and late payment of income tax. (4 marks)

(b) Prepare brief notes to be used in the training workshop for the graduate trainees explaining:

(i) The meaning of integrity and objectivity as fundamental principles contained in the IESBA's Code of Ethics for Professional Accountants. (5 marks)

(ii) The meaning of a self-review threat and an advocacy threat. (4 marks)

[Total: 20 Marks]

<u>QUESTION FIVE</u>

Zam Auto Limited is a Zambian resident company trading in various products. The company registered for Value Added (VAT) during the tax year 2022, after meeting the relevant VAT registration requirements. The following information relates to the company's operations during the year.

Importation of Fuso Truck

In February 2022, the company imported a second hand 20 tonne Fuso truck from Japan costing $15,500 on 2 March 2022. The truck was manufactured in January 2016. The company incurred insurance charges of $2,500, freight charges of $4,100 and other incidental costs of $1,100 up to the port of entry into Zambia. The transport costs from the border to Lusaka were K9,554. The exchange rate quoted by the BOZ and approved by the Commissioner General at the date of importation was K17.60. However, the exchange rate quoted by most of the commercial banks averaged K18.20 per US.

Financial Performance

The following summarised statement of profit or loss for the month of May 2022 has been extracted from the company's management accounts:

K

Sales	(Note 1)	1,344,000
Cost of sales	(Note 2)	(696,600)
Gross profit		647,400
Other income	(Note 3)	29,750
Operating expenses	(Note 4)	(376,300)
Profit before tax		300,850
Income tax expense	(Note 5)	(86,100)
Profit for the year		(214,750)

The following additional information is available:

(1) Standard rated sales, represent 50% of revenue, exempt sales amounted to K268,800 and Zero rated sales were K403,200.

(2) The cost of sales comprises purchases of K417,600. Included in the purchases are standard rated purchases on credit of K292,320 and cash purchases of K25,280 made from suppliers who are not registered for VAT. Zero rated purchases amounted to K30,700 and exempt purchases were K69,300. Depreciation charged on non-current assets used for business purposes for the year and included in cost of sales was K279,000. There was neither opening nor closing inventory in the month of May.

(4) Other income comprises royalties which were received during the month, net of withholding tax.

(5) Operating expenses comprises the following:

	K
Wages and salaries	200,520
Entertaining customers	31,000
Motor vehicle repairs	37,630
Diesel	45,000
General overheads	62,150
	376,300

(6) The income tax expense figure represents provisional income tax paid during the year.

(7) The company purchased a 2,200cc, Toyota Fortuner car at cost of K165,300 (VAT inclusive) during the month. The car was provided to the Finance Director on a personal to holder basis whose private use of the car is 25%.

(8) The company also bought a motor van costing K185,600 (VAT inclusive) on 30May 2022.

Required:

(a) Compute the amount of import taxes arising on the importation of the Fuso Truck in the month of February 2022. (7 marks)

(b) Explain the VAT registration requirements for a business. (4 marks)

(c) Calculate the VAT payable for the month of May 2022. You should indicate by the use of zero (0) for all the items on which VAT is not payable nor claimable (9 marks)

[Total:20Marks]

END OF PAPER

CA2.4 TAXATION SUGGESTED SOLUTIONS

SOLUTION ONE

(a) The return should have been submitted on 31 March 2022.

Since the return was submitted on 10 July 2022, it was submitted 3 months and 10 days late.

The penalty for late submission of income tax returns for companies is 2000 penalty units (or K600) per month or part thereof. The amount of penalties arising are therefore:

2000 penalty units x 4 = 8,000 penalty units (or K600 x 4 = K2,400)

(b) (i) DETERMINATION OF QUALIFYING COST FOR IBA PURPOSES

	K
Total cost	6,250,000
Less cost of land	(1,250,000)
	5,000,000
10% test (10% x K5,000,000)	500,000

The Administration offices and show room have a total cost of K626,000 (K300,000 + K326,000) and hence have failed the test and will be classified as commercial buildings.

COMPUTATION OF CAPITAL ALLOWANCES ON BUILDINGS

	K
Staff Canteen	
Wear & tear allowance	
(K1,124,000 x 5%)	56,200
Factory	
Wear & tear allowance	
(K3,250,000 x 5%)	162,500
Showroom	
Wear & tear allowance	
(K300,000 x 2%)	6,000
Administration offices	
Wear & tear allowance	
(K326,000 x 2%)	6,520
	231,220

(ii) Capital allowances on implements, plant & machinery

COMPUTATION OF CAPITAL ALLOWANCES

	K	K
Pool car		
ITV b/f 127,600 -(K127,600 x 20% x 3)	51,040	
Proceeds (K30,000 x 116%)	(34,800)	
Balancing allowance	16,240	16,240
Office furniture		
Cost (K139,200 x 25/29)	120,000	
Less Total Capital allowances (K120,000 x 25% x 2)	(60,000)	
ITV at 1 Jan 2022	60,000	
Disposal Proceeds (restricted to cost)	(120,000)	
Balancing charge	(60,000)	(60,000)
Toyota Fortuner		
Wear & tear allowance		
(K450,000 x 116%) x 20%		104,400
Delivery truck		
Wear & tear allowance		
(K550,000 x 25%)		137,500
Manufacturing Plant		
Wear & tear allowance		
(K1,380,000 x 50%)		690,000
		888,140

(c) NAMWALA PLC

COMPUTATION OF TAXABLE PROFITS

	K	K
Net Profit as per		14,734,510
Add:		
Depreciation	486,000	
Supplier loans written off	164,000	
Employee loans written off	130,000	
Accommodation benefit - MD (30% xK960,000)	288,000	
Gifts of T-shirts to customers	28,400	
Legal fees for recovery of loans from employees	140,000	
Legal fees for acquisition of land	76,500	
Loss on disposal of assets	64,200	
Theft of money by the finance manager	600,000	
Political party donations	350,000	
Donation to approved PBO	850,000	
Personal to holder motor car benefit	40,000	
		3,217,100
		17,951,610
Less		
Loan interest	224,400	
Dividends	127,850	
Consultancy	323,000	
Decrease in general provision for bad debts		

(K315,600 - K286,600)	29,000	
Employee loans recovered	90,000	
Capital allowances on Buildings (Part a)	231,220	
Capital allowances on IPMs (Part a)	888,140	
		(1,913,610)
Final Taxable Profits		16,038,000

(d) NAMWALA PLC
COMPANY INCOME TAX COMPUTATION FOR THE TAX YEAR 2022

	K	K
Business Profit		16,038,000
Loan note interest (K224,400 x 100/85)	264,000	
Consultancy fees (K323,000 x 100/85)	380,000	
		644,000
Final taxable income		16,682,000
Company income Tax		
(K16,682,000 x 30%)		5,004,600
Less Tax already paid		
WHT on loan note interest		
(K264,000 x 15%)		(39,600)
WHT on Consultancy fees		
(K380,000 x 15%)		(57,000)
Provisional income tax paid		(4,800,000)
Company income Tax payable		108,000

SOLUTION TWO

(a) When income tax deducted under the PAYE system is paid late, the consequences are:

(1) A penalty at the rate of 5% of the unpaid tax is chargeable per month or part thereof; and

(2) Interest on overdue tax is charged at the Bank of Zambia discount rate plus 2% per annum. This interest covers the period from the due date to the date when the tax is actually.

(b) The actual receipts basis is the basis of assessment for emoluments from employment. This means that emoluments from employment are taxable in the tax year when they are actually received. Towards the end of the year, some emoluments may be determined but not paid until the start of the following year. In such a case the date of actual receipt may not be the determinant of the tax year when emoluments will be taxable. Such emoluments will be deemed to have been received on the earlier of:

(1) The time when they are actually paid; and

(2) The time when the employee becomes entitled to them

The tax year in which the earlier of the two dates above falls is when the emoluments will be taxable.

(c) JABESI BANDA
PERSONAL INCOME TAX COMPUTATION FOR THE TAX YEAR 2022

	K	K
Earned income		
Salary (18,000 x 5) + (20,500 x 4)		172,000
Housing allowance (172,000 x 20%)		34,400
Transport allowance (172,000 x 5%)		8,600
Amount not spent on uniform (3,400 – 2,300)		1,100
Water bills		5,200
Electricity bills		12,100
		233,400
Investment income		
Management fees (12,750 x 100/85)	15,000	
Royalties (4,250 x 100/85)	5,000	
		20,000
Total income		253,400
Less allowable deductions		
Subscriptions to professional body	2,500	
Donations to approved charity	3,000	
		(5,500)

		247,900
Less tax free income		(54,000)
Taxable income		193,900
Income tax:		
25% x 3,600		900
30% x 25,200		7,560
37.5% x 165,100		61,913
		70,373
Less income tax already paid:		
WHT- M & C Fees (15,000 x 15%)		(2,250)
WHT – Royalties (5,000 x 15%)		(750)
PAYE		(32,500)
Income tax payable		34,873

SOLUTION THREE

(a) Tumulo Tiyonge

(i) The following are the persons who are not required to pay turnover tax:

(1) Any person whose annual turnover is more than K800,000.
(2) Any person whose earnings are subjected to withholding tax and withholding tax is not the final tax.
(3) Any person whose annual turnover is less than K800,000 but has voluntarily registered for value added tax.
(4) Any partnership regardless of whether the annual turnover is less than K800,000.
(5) Any person whose income constitutes income from partnership.
(6) Any individual or partnership carrying on public passenger transportation business.
(7) Any person carrying on mining operations in Zambia.

(ii) Tumelo's annual turnover is expected to be: K61,000 x 12 = K732,000.
Tumelo will be required to pay turnover tax for the tax year 2022 because her annual turnover is less than K800,000.

The amount of turnover tax for the tax year 2022 will be: K732,000 x 4% = K29,280.
This tax should be paid monthly not later than 14th day of the following month. The monthly turnover tax will be: K61,000 x 4% = K2,440.

All the expenses to be incurred by Tumelo will not be deductible in computing the turnover tax because turnover tax is computed on the gross turnover.

(b) Philip Chiko

(i) For the purposes of property transfer tax, property means all immovable assets but excludes chattels. The following are the examples of categories of property:

Under the PTT Act property includes:
(1) Land (including buildings or any structure on it)
(2) Shares excluding shares listed on the Lusaka Securities Exchange
(3) Intellectual property
(4) Mineral processing licenses
(5) Mining rights or an interest in mining rights

(ii) Property transfer tax implications are as follows:

(1) Philip will be required to pay property transfer tax on the transfer of farm land. Property transfer tax is calculated at a rate of 5% of the realized vale.

The realized value is the higher of consideration received and the open market value. In this case the realized value is K230,000.
Property transfer tax payable by Philip will be: K230,000 x 5% = K11,500.

(2) He will be required to pay property transfer tax on the transfer of residential plot. Property transfer tax is calculated at 5% on the realized value.

The realized value of the plot is K130,000 which is the higher of actual consideration. Property transfer tax payable will be: K130,000 x 5% = K6,500.

(3) He will not be required to pay property transfer tax on the transfer of the Toyota Hilux van. This is so because transfer of chattels falls outside the scope of property transfer tax.

(4) He transferred a supermarket store to his daughter, which is the transfer of property to member of the immediate family. Property transfer tax will be payable on the transfer of the supermarket store and the realized value is the actual consideration received from the daughter.

In this case the realised value is K100,000 and not the open market value of K550,000. Property transfer tax payable: K100,000 x 5% = K5,000.

(5) Property transfer tax will be payable on the transfer of equity shares which are not listed on the Lusaka Securities Exchange. The realised value is whichever is higher between the nominal value and consideration received or open market value.

Nominal value = K1 x 10,000 shares = K10,000.
Consideration received: K15 x 10,000 shares = K150,000
Open market value: K14 x 10,000 shares = K140,000.

The realised value is therefore, K150,000. Property transfer tax payable will be: K150,000 x 5% = K7,500.

(6) Property transfer tax will not be payable on the transfer of equity shares held in TGH Plc because transfer of shares listed on Lusaka Securities Exchange is exempt from property transfer tax.

SOLUTION FOUR

(a) (i) Tax avoidance is the minimization or elimination or deferment of tax liabilities by taking advantage of the loopholes within the tax legislation. This enables the taxpayer to obtain tax advantage that was not originally intended by the tax law.

Tax avoidance is legal and it is not an offense but it defeats the purpose of the tax legislation. To discourage its practice, the Government issue anti-avoidance laws to seal the loopholes and all the weaknesses in the tax legislation.

Tax evasion, on the other hand, is the minimization or avoidance of tax liabilities through illegal means or by breaching tax legislation. The main purpose of tax evasion is to deprive the Government of the revenue.

Tax evasion is illegal and it is an offense. Therefore, to discourage its practice tax evasion is an offence which is punishable by fines, imprisonment or both.

Tax evasion arises when taxes are perceived to be too high or unfair on tax payers, although it can be deliberate where taxpayers conceal the sources of income.

(ii) Due dates for submission of returns:

Turnover Tax return

Turnover tax return should be submitted not later than the 14th day of the month following the month to which the return relates.

Self-assessment income tax return

The self-assessment income tax return should be submitted on or before 21 June of the year following the end of the tax year to which the return relates.

(iii) Consequences for late submission of returns and late payment of income

The consequences for late submission of returns and late payment of income tax are as follows:

(1) A penalty for late submission of returns is 1,000 penalty units or (K300) per month or part thereof for individuals
(2) A penalty for late submission of returns is 2,000 penalty units or (K600) per month or part thereof for limited companies.
(3) A penalty for late payment of tax is charged at a rate of 5% of the unpaid tax per month or part thereof.
(4) Interest is charged on overdue tax at the Bank of Zambia discount rate plus 2%.

(b) **(i) Integrity**

The principle of integrity imposes an obligation on the member to ensure straightforwardness, fair dealing, a commitment not to mislead or deceive and truthfulness.

This means that a member providing tax services shall not knowingly be associated with reports, returns, communications or other information where the member believes that the information contains a materially false or misleading statements or calculation and statements or information furnished recklessly.

Objectivity

The principle of objectivity requires members to be impartial and not allow prejudice or bias, conflict of interest or undue influence of others to override professional judgements in relation to tax matters.

Where a member is required to act as an advocate for a client when representing or assisting them before the tribunal or courts of law, the member shall ensure that the client is aware that the member has an obligation not to mislead the court or tribunal.

(iii) Self-review threat

This threat may occur where a member has been asked to review the work that they have previously done. This is may be difficult for the member to identify or detect any defects in the work they previously did sometimes in fear of losing their job or ruining their reputation.

Advocacy threat
This threat may occur where a member is asked to represent a client either in the court of law or the tribunal. The member may likely be biased in favour of the client which may compromise his professional objectivity.

SOLUTTION FIVE

(a) **COMPUTATION OF IMPORT TAXES PAID ON IMPORTATION TATA TRUCK**

	$
Cost	15,500
Insurance	2,500
Freight	4,100
Other incidental costs	1,100
CIF	23,200
Value for Duty Purposes ($23,200 x K17.60)	K408,320

	Values	Taxes paid
	K	K
VDP	408,320	
Customs duty	11,744	11,744
	420,064	
Excise duty	9,004	9,004
	429,068	
Import VAT @16%	68,651	68,651
	497,719	
Surtax		2,000
Total import taxes paid		91,399
Transport costs to Lusaka	9,554	
Total for capital allowances	507,273	

(b) VAT requirements are as follows:

(1) A new business whose VAT exclusive turnover of taxable supplies is likely to exceed the annual threshold of K800,000 for forth coming period of twelve months or the quarterly registration threshold K200,000 for a forth coming period of three months becomes liable to register from the date of commencement of, trading.

(2) A continuing business whose VAT exclusive taxable turnover has exceeded the annual registration threshold of K800,000 for a period of twelve or the quarterly registration threshold for a period of three months is required to register within one month of an application being made or from the date the application was received or; or

(3) A business making taxable supplies has an option to voluntarily register even when the taxable supplies have not reached the registration threshold.

(c) ZAM AUTO LIMITED

COMPUTATION OF VAT FOR MONTH MAY 2022

	K	K
OUTPUT VAT		
Standard rated sales (1,344,000 x 50% x 16%)		107,520
Exempt sales		0
Zero rated sales (403,200 x 0%)		0
		107,520
INPUT VAT		
Standard rated purchases (292,320 x 16%)	46,771	
Exempt purchases	0	
Zero rated purchases (30,700 x 0%)	0	
Entertaining customers	0	
Motor vehicle repairs (37,630 x 16%)	6,021	
General overheads (62,150 x 16% x 80%)	7,955	
Diesel	0	
Toyota Fortuner (Irrecoverable)	0	
Motor van (185,600 x 4/29)	25,600	
		(86,347)
VAT payable		21,173

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ZAMBIA APPLICATION ADVANCED DIPLOMA IN ACCOUNTANCY

CA 2.5: FINANCIAL MANAGEMENT

FRIDAY 16 SEPTEMBER 2022

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)

AJER Ltd is a furniture manufacturing company based in Zambia. The company has branches across the country with 40% of the market share. AJER Ltd has experienced stiff competition which affected the revenue growth in the past two years. The company has decided to differentiate itself. AJER is currently considering investing in the manufacturing of high quality unique executive chairs mainly for corporate clients. The proposed investment will require the procurement of a specialised equipment costing K150 million with a life of 15 years and a final scrap value of K15 million.

The sales and marketing department forecast annual demand for the chairs to be 15,000. The following information relates to the production and selling of a chair:

Description	ZMW
Selling Price	6,000
Variable Production Costs	3,250
Contribution Per Unit	2,750

The projected annual additional fixed cost is K15 million. AJER Ltd had spent K0.5 million on marketing research. The company believes that this proposed investment will increase the shareholders wealth and improve the relationship between the shareholders, managers and the company's long-term creditors.

The debt to equity ratio for AJER Ltd is 30:70 and has an equity beta of 1.3. The financial market analysts expect the market return to be 15%. The government securities are giving a return of 8%. AJER Ltd has issued bonds of K100 nominal value with annual interest of 9% per year, based on the nominal value. The current market price of the bonds is K90.

Required:

(a) Calculate the weighted average cost of capital for AJER Ltd. (6 marks)

(b) Evaluate the financial viability of the proposed project using the Net Present Value method. (10 marks)

(c) Calculate the sensitivity to change of:

(i) The initial investment
(ii) The annual selling price.
(iii) The annual Variable costs
(iv) The contribution
(v) The annual fixed costs
(vi) The scrap value
(vii) The cost of capital

(9 marks)

(d) Comment on each result in (b) above. (7 marks)

(e) Explain how the proposed investment could increase Shareholders wealth and impactthe relationship between the Shareholders, Managers and company's long-term creditors (8 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>

The Directors of Nima Energy Corporation have appointed you as their financial consultant. They are considering new investment projects and require you to calculate the cost of capital of the company.

Nima Energy profit after tax for the year ended 31 December 2020 was K762,640. The book value of its equity as at 31 December 2020 was K2,464,000. The company recently paid a dividend of K152,530 for the year ended 31 December 2020. Its capital structure includes:

(1) 1.2 million Issued ordinary shares with a par value of K10 per share.

(2) An issue of 1,000 18% Debentures with a par value of K6,500 each. The debentures are redeemable in 5 years' time at par. The investor requires a return of 10% and Interest payments are made semi-annually.

(3) A 12 years 16% bank loan of K2,300,000.

(4) A bank overdraft of K500,000 due in (3) years' time and interest is charged at 15% per annum.

Additional information is provided in the following table:

Market risk premium	15%
Interest on government bonds	6%
Beta of Nima Energy	1.4
Annual rate of corporation tax	30%

Required:

(a) Using the earnings retentions model (Gordon's growth model), calculate the growth rate in dividends. (5 marks)

(b) Calculate the weighted average cost of capital (WACC) for Nima Energy Corporation. (15 marks)

[Total: 20 Marks]

QUESTION THREE

XP-Computer Solutions need to upgrade its mainframe computer system. A suitable one costs K300,000 and it would have a useful life of four (4) years with a disposal value of K40,000 at the end of the fourth year. The computer system can be leased or purchased. The terms of the lease and purchase agreement are as follows:

Lease:

The lease would require annual end of year payments of K90,250 over the next four (4) years. The interest element of the lease payments is tax-allowable.

Purchase:

The cost could be financed using a loan facility with a commercial bank. XP could pay cash for the machine using the bank loan facility on which the current rate of interest is 17% before tax. The company can claim capital allowances using the straight line method over the life of the computer.

Taxation:

Corporation tax is 30% per annum and it is payable in the year in which profits occur.

Required:

(a) Determine the after tax cash flows and the net present value of the cash flows under each alternative. (18 marks)

(b) Recommend to XP- Computer system on whether to lease or buy based on financial grounds. (2 marks)

[Total: 20 Marks]

QUESTION FOUR

ZECO is a public listed company based in Zambia with the Kwacha (ZMW) as its functional currency. The company is an energy supply company, operating a number of electricity generating facilities and electricity grids both in Zambia and other East and Southern African countries. It has a central treasury function based in Zambia. The company has defined its three financial objectives as follows:

1. To increase dividends by 10% a year.

2. To keep gearing below 40% (where gearing is calculated as debt/ (debt + equity)).

3. To expand by internal growth and/or by horizontal integration via acquisition of companies operating in the same industry sector.

ZECO has identified a potential takeover candidate, company CEC, which operates three electricity generating stations in DRC Congo and has the Franc (FRA) as its functional currency. ZECO is considering a cash offer to CEC of approximately 20% premium on the Kwacha share price of CEC but it has not yet been decided whether this would be financed by debt (at an after tax cost of 15% per annum) or equity.

CEC has a total of 50,000 million shares in issue and the current ZMW/FRA spot rate is ZMW/FRA 9.500 (that is, ZMW 1 = FRA 9.500). CEC has an earnings yield of 10% and total earnings of FRA 201,875 million.

Required:

(a) Describe three (3) roles that the central treasury function of ZECO might play in the evaluation and/or implementation of the proposed acquisition of CEC. (6 marks)

(b) Calculate the approximate share price and total value of CEC implied by the cash offer considered by ZECO for the takeover of CEC. (6 marks)

(c) Explain when the following business valuation methods could be used and the information required to undertake the valuations;

(i) Asset based methods. (4 marks)

(ii) Dividend based methods. (4 marks)

[Total: 20 Marks]

<u>QUESTION FIVE</u>

MAB Manufacturing Ltd is specialized in the production of organic cooking oil which it exports mainly to Europe and Asia. The annual demand for organic cooking oil is 40,000 units, at a steady rate. It costs K20,000 to place an order, and K400 to hold a unit for a year. The company had been experiencing cash flow challenges because of the long cash flow cycle and Management plans to engage a factoring company to remedy the problem.

There was also a suggestion by one of the Managers to employ Baumol Model in managing the cash; however, the Finance Manager is in opposition because of its draw backs.

Required:

(a) Compute the order size to minimize inventory costs, the number of orders placed each year, the length of the inventory cycle and the total costs of holding inventory for the year. (8 marks)

(b) Discuss the benefits to MAB Manufacturing Ltd of engaging a factoring company. (6 marks)

(c) Explain the Baumol Model and its draw backs in managing cash by MAB Manufacturing Ltd. (6 marks)

[Total: 20 Marks]

END OF PAPER

CA 2.5 FINANCIAL MANAGEMENT SUGGESTED SOLUTIONS

SOLUTION ONE

a)

Cost of Capital

kd = 9/90 x 100% =10%

ke= 8% + 1.3(15%-8%) = 17.1%

WACC = (17.1% x 0.7) + (10% x 0.3) = 14.97% round off to 15%

b)

Period	Description	Cash flow (K'000)	D.F. @ 15%	P.V (K'000)
0	Cost	(150,000)	1	(150,000)
1 – 15	Contribution	41,250	5.847	241,189
1 –15	Fixed costs	(15,000)	5.847	(87,705)
15	scrap	15,000	0.123	1,845
NPV				**5,329**

The proposed project shows a positive NPV of K5.329 million and therefore, it should be accepted. Accepting the project will result in the increase of shareholders wealth by K5.329 million in absolute amount.

c)

i. sensitivity of initial investment = $\frac{5,329}{150,000}$ ×100% = 3.55%

ii. sensitivity of sales = $\frac{5,329}{526,230}$ × 100% = 1.01%

*PV of sales = K6,000 X 15,000 X 5.847 = K526,230,000

iii. Variable Costs = $\frac{5,329}{285,041.25}$ x 100% = 1.87%

* PV of variable costs = K3,250 X 15,000 X 5.847)= K285,041,000

iv. sensitivity of contribution = $\frac{5,329}{241,189}$ × 100% = 2.21%

v. sensitivity of fixed costs = $\frac{5,329}{87,705}$ × 100% = 6.08%

vi. sensitivity of scrap value = 5,329 ×100% = 289%

1,845

vii. Cost of Capital

Period	Cash flow (K'000)	d.f. @ 20%	P.V (K'000)
0	(150,000)	1	(150,000)
1 – 15	41,250	4.675	192,844
1 – 15	(15,000)	4.675	(70,125)
15	15,000	0.065	975
NPV			(26,306)

$$IRR = 15\% + \frac{5,329}{5,329 + 26,306} \times (20\%-15\%) = 15.84\%$$

$$\text{Sensitivity of cost of capital} = \frac{0.84}{15} \times 100\% = 5.6\%$$

d

i. The initial costs of capital need to increase by more than 3.55% before the project generate a negative NPV.
ii. The sales need to decrease slightly by more than 1.01% before the project generates a negative NPV.
iii. The variable costs need to increase by more than 1.87% before the project generates a negative NPV.
iv. The contribution need to decrease by more than 2.21% before the project generate a negative NPV
v. The fixed costs need to increase by more than 6.08% before the project generate a negative NPV
vi. The scrap value need to decrease by more than 289%% before the project generate a negative NPV.
vii. The costs of capital need to increase by more than 5.6% before the project generate a negative NPV.

The project is more sensitive to the changes in the sales and any slight changes by more than 1.01% in the sales the project will result in a loss.

Workings

e)

Shareholders, managers and the company's long-term creditors

The relationship between long-term creditors of a company, the management and the shareholders of a company encompasses the following factors.

(i) Management may decide to raise finance for a company by taking out long-term or medium-term loans. They might well be taking risky investment decisions using outsiders' money to finance them.

(ii) Investors who provide debt finance will rely on the company's management to generate enough net cash inflows to make interest payments on time, and eventually to repay loans.

However, long-term creditors will often take security for their loan, perhaps in the form of a fixed charge over an asset (such as a mortgage on a building). Bonds are also often subject to certain restrictive covenants, which restrict the company's rights to borrow more money until the debentures have been repaid.

If a company is unable to pay what it owes its creditors, the creditors may decide to exercise their security or to apply for the company to be wound up.

(iii) The money that is provided by long-term creditors will be invested to earn profits, and the profits (in excess of what is needed to pay interest on the borrowing) will provide extra dividends or retained profits for the shareholders of the company. In other words, shareholders will expect to increase their wealth using creditors' money.

SOLUTION TWO

a)

GROWTH RATE

ARR= PAT/capital employed
762640/2464000
=0.309512987
31%

Dividend pay out ratio
= Div/PAT
152530/762640
=0.200002622
20%

Earnings retention rate = 1- div payout ratio
=1-0.2
=0.8

G= ARR X Earnings Retention Rate
31% x 80%
=0.248
=25%

b)

1)COST OF EQUITY

Ke = Rf + B (Rm - Rf)
6% + 1.4 x 15%
21
6% + 21
27%

Mv of shares= D0(1 +g)(/Ke -g)
152530 (1+0.25) / (0.27-0.25)
190662.5/0.02

<u>K9,533,125</u>

2) COST OF DEBENTURES

Kd = I (1-tx)
10% x (1-0.3)
10*0.7
7%

3) COST OF BANK LOAN

Kd = 12 (1-0.3)

8%

4) COST OF BANK OVERDRAFT

Kd = 15 (1-0.3)
15*0.7
10.50%

Mv of Debentures =
the present value of interest and redemption
Interest payments are semi-annual
9% x K6500
585
(585 X 5% for 10 periods) + (6500 x 5% for 10 periods)
(585 x 7.722)+ (6500 x 0.614)
4517.37
3991
4517.37+3991
8508.37
1000 * 8508.37
8508370
K 8,508,370

4) WACC

	Mkt Value	proportion	cost %	prop x cost%
Shares	9,533,150	0.457411	27	12.35
Debenture	8,508,370	0.408241	7	2.86
Bank loan	2,300,000	0.110357	8	0.88
Bank overdraft	500,000	0.023991	10.5	0.25
	20,841,520			16.34%

The WACC = 16.34%

SOLUTION THREE
(a)

Capital allowances

Depreciation = (Cost - Scrap value)/ Estimated useful life

=(300,000-40,000)/4

=65000

Tax savings @ 30% = 19,500
DF is the after tax cost of borrowing
17* 0.7 = 11.9

Purchase Cost

Year	0	1-4	4
	K		
Purchase cost	(300,000)		
Tax svings		19,500	
Disposal Value			40,000
DF @ 12%	1	3.037	0.636
PV	(300,000)	59,222	25,440
NPV	(215,339)		

Leasing Cost

calculation of interest rate implicit in the lease

IRR Calculation

Year		Cash Flow	DF	PV	DF	PV
		K	7%	K	8%	K
0	Purchase cost	(300,000)	1	(300,000)	1	(300,000)
1-4	Lease payments	90,250	3.387	305,676.75	3.312	298,908
				5,676.75		(1,092)

IRR= 7% + 5676.75/(5676.5+1092) x 1%

5676.5+1092 =	6768.75	
5676.5/6768.75	0.8386334	
7% +	0.83863	x 1%
7%+	0.83863	
	7.84%	

opening balance	implicit interest @ 7.838%	End of year debt	Repayment	Closing Balance
K	K	K	K	K
300,000	23,514	323,514	90,250	233,264
233,264	18,283	251,547	90,250	161,297
161,297	12,642	173,940	90,250	83,690
83,690	6,560	90,249	90,250	(1)

NPV of leasing costs

Year	1	2	3	4
	K	K	K	K
Lease payments	(90,250)	(90,250)	(90,250)	(90,250)
Tax savings on depreciation	19,500	19,500	19,500	19,500
Tax savings on implicit interest	7,054	5,485	3,793	1,968
Net cash flows	(63,696)	(65,265)	(66,957)	(68,782)
Discount Factor @ 12%	0.893	0.797	0.712	0.636
Present Value	(56,880)	(52,016)	(47,674)	(43,745)
NPV	(K200,316)			

(b)I recommend the lease option as it has lower present value of costs of K200316 as compared to K215339 for the purchase option.

SOLUTION FOUR

Part (a)

Candidate answers should include a full description of any THREE of the following key roles of treasury during the evaluation and implementation of the acquisition:

1. Advise on an appropriate discount rate for use in the evaluation of CEC with regard to:

   i. Risk appetite of ZECO and risk profile of CEC.
   ii. Currency profile of CEC's cash flows.
   iii. Cost of capital of ZECO.

2. Advise on appropriate funding of bid, including:

   i. The choice of debt versus equity funding.
   ii. Choice of actual sources of finance.

3. Liaise with 3rd parties:

   i. Negotiate with lenders over interest rate, fees and covenants for bank debt.
   ii. Liaise with intermediaries regarding the issuance of bonds, including costing, publicity and other arrangements.
   iii. Liaise with intermediaries regarding the costing and arrangements for a rights issue or placement of shares.
   iv. Controlled release of information to the market.

4. Risk management aspects of the proposed acquistion, including:

   i. Managing exchange rate risk (for example, through hedging or foreign currency borrowing).
   ii. Managing interest rate risk (for example, by choice of interest profile and/or interest rate swap).
   iii. Manage liquidity risk – forecast liquidity needs and ensure that sufficient liquidity is available at all times.

5. Assess reaction of the market in terms of:

   i. Impact on credit rating and credit worthiness in general.
   ii. Impact on share price.
   iii. Impact on debt covenants.

6. Integration of CEC into central treasury systems. This might include:

   i. Pooling of bank accounts.
   ii. Standardising bank relationships.
   iii. Regular cash forecasts.
   iv. Reporting exchange rate risk.
   v. Controlling working capital.

Part (b)

EPS = earnings/no. of shares (FRA201,875/50,000) = FRA4.0375

Earnings Yield (EY) = EPS/MPS

Therefore, MPS = EPS/EY (FRA4.0375/0.1) = FRA40.375

Convert MPS to Kwacha using spot rate; FRA40.375/9.5 = ZMW4.25

Offer is at 20% premium ZMW4.25 x 1.2 = ZMW5.1 per share

Total valuation of CEC would be ZMW5.1 x 50,000 = ZMW255,000 million

Part (c)

i) Asset valuations

The asset values in the balance sheet are historical and are not usually reliable estimates of the current market values. In addition, intangible assets such as inherent goodwill may not be recorded. Where realizable values can be found, it will give the lowest price a vendor will accept, even if he is desperate to sell, as he could break the entity up himself and sell off the assets. This approach is usually appropriate when a company is sold as a breakup so that each asset could be separately valued to fair value where possible at the time of sale.

A company is usually bought as a source of future cash streams, rather than to access and sell the assets, so the asset value, which simply looks at the book value of tangible net assets, is not particularly relevant unless it is the intention to liquidate the company

ii) Dividend valuation models

The dividend valuation model with growth where we assume constant growth in dividend in perpetuity is appropriate where a company pays a regular dividend. However, in a private entity, dividends can be more haphazard as owners are also rewarded through salaries. Adjustments may be needed to alter salaries to market rates before using 'potential' dividends. The cost of equity can be estimated from CAPM using the beta of similar listed entities.

The dividend yield could also be applicable, with an average dividend yield for a similar listed sector can be applied to the target entity's dividend in the valuation.

Therefore, the dividend valuation model assumes constant growth in dividends forever and it's more appropriate for minority shareholdings who would be unable to alter the dividend policy.

SOLUTION FIVE

a)

$$Q = \sqrt{\frac{2C_0D}{C_h}} = \sqrt{\frac{2 \times 20,000 \times 40,000}{400}} = 2,000 \text{ units.}$$

This means that there will be:

$$\frac{40,000}{2,000} = 20 \text{ orders placed each year.}$$

The inventory cycle is therefore:

$$\frac{52 \text{ weeks}}{20 \text{ orders}} = 2.6 \text{ weeks.}$$

Total costs will be $(20 \times K20,000) + \left(\frac{2,000}{2} \times 400\right) = K800,000$ a year.

b) The benefits of factoring to MAB Manufacturing Ltd include:

(i) Pay suppliers promptly and enjoy the early payment discounts.
(ii) Maintenance of optimal inventory because of enough cash available.
(iii) Growth financed by sales rather than fresh external finances.
(iv) Finance linked to volume of sales rather than overdraft which is limited to historical financial statements
(v) Management time is saved from chasing slow paying accounts receivables.
(vi) The company does not incur costs of running its own sales ledger department

c) The Baumol Model is based on the idea that deciding on the optimum cash balances is like deciding on the optimum inventory level. It assumes that cash is steadily consumed over time and business holds a stock of marketable securities that can be sold when cash is needed. The cost of holding cash is the opportunity cost i.e. the interest forgone from investing the cash. The cost of placing an order is the administration cost incurred when selling the securities. The draw backs include:

(i) In reality, it is unlikely to be possible to predict mounts required over future periods with much certainty.
(ii) No buffer inventory of cash is allowed for. There may be costs associated with running out of cash.
(iii) There may be other normal costs of holding cash which increase with the average amount held.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA APPLICATION ADVANCED DIPLOMA IN ACCOUNTANCY

CA 2.6 STRATEGIC BUSINESS ANALYSIS

WEDNESDAY 14 SEPTEMBER 2022

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)

A CHANGE OF ROLE FOR THE CENTRE: DRAAM BUSINESS EQUIPMENT ZAMBIA LIMITED

Historically DRAAM Zambia Limited had a centralised command and control structure supported by a strategic planning style at the corporate centre. However, as the structure has changed to a federation of individual businesses, the strategic style of the centre has also changed to of strategic control

Between 2011 and 2015 DRAAM Zambia was forced to take radical action in response to falling revenues and profitability levels. A review of the market place revealed that it was developing so fast and into so many niches that the old centralised planning and control structure was incapable of reaction fast enough. Within this structure, the company was largely product and technology driven, and product strategies were primarily developed at corporate headquarters. Regional centers were responsible for short- and medium-term targets, and for managing their resources and skills to achieve these targets. Within each region, sales branches had no strategic flexibility. They were given annual revenue, headcount and expense targets, with the main focus being on the achievement of revenue.

Under increasing pressure, a decision was taken to restructure the organisation into a federation of businesses, so devolving decision making closer to the customer to get the responsiveness needed. Further actions included changing the management system and substantially increasing the focus on quality. In this new environment, where the was considerable interdependence between businesses, retaining strategic planning style would have damaged the federal concept a pure financial control style would have suboptimised the interdependencies between businesses. The adoption of a strategic control style was the optimal choice.

The adopted strategic control style means the individual businesses are free to experiment and to display the entrepreneurial characteristics necessary for rejuvenation. Power is placed as low down in the organisation as practical, with the sales branches and functions having both profits responsibility and power to exercise that responsibility. Some power remained centralised, but only where there is good reason to do so. The centre's role has thus changed to:

- Deciding the allocation of limited financial resources between members of the federation.
- Investing in new opportunities and areas not being covered by existing businesses.
- Divesting those markets and systems which are no longer integral to the success of the whole.
- Establishing shared values and a style to bind the federation.
- Adding value through provoking strategic thinking and reviewing strategies.

- Optimising performance by not granting "licences" for unattractive markets. Licences are obtained from the holding company when a business wants to operate in a specific area. Normally this will be an exclusive licence, although in some cases it may be appropriate for more than one business to be licensed.

Adapted from Gerry Johnson and Kevan Scholes, Page 428, Prentice-Hall Europe, (1999), 5th Edition

Required:

(a) Explain the distinction between Centralisation and Decentralisation in the management of DRAAM Zambia Limited. (4 marks)

(b) Discuss any five (5) strategic control processes that this company would put in place in its operations. (10 marks)

(c) Likewise, DRAAM Zambia Limited, found it necessary to change to a federation or Decentralisation of businesses giving decision making closer to the customer.

Required:

Explain any five (5) advantages of Decentralisation that was found in this decision.

(10 marks)

(i) In your opinion, is this the best form of strategic control given the nature of DRAAM Zambia strategies in the period 2011 to 2015? Explain in full. (4 marks)

(ii) Discuss any six (6) strategic tests that may be used to assess proposed structure basedon either objectives or design as proposed by Goode and Campbell (2002). (12 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Answer Any THREE (3) from the following Questions.

QUESTION TWO

The Kafue Flats Development company, a large rice growing company in the Southern Province of Zambia with a large export base in the SADC region and a high market share locally has had pressure from local rice growing producers from the Barotse Plains, Chama and Nakonde. This dominance is fast been eroded by producers from these regions and embarked on expansion strategies to safeguard its dominance.

Required:

Using a fully labelled diagram of the Igor Ansoff's expansion grid, demonstrate how it would be of help to this company. **[Total: 20 Marks]**

QUESTION THREE

With a large number of projects and programmes on the go varying in size from K2.50 million, Kafue Infrastructure Network Engineering's (KINE) existing Excel based risk management system was no longer working for them. This has affected not only the operations but market share. George Mutakela, Director, Infrastructure (Rail) at Kafue International's Network Engineering Business Unit explains: 'Under the old system, we were building a margin of risk into project estimates, giving the project manager the discretion to use it as a cost and therefore spend it all. Profitability was compromised, and one of the main areas identified for improvement was risk management.' Kafue set a goal to increase the number of bids won, and to increase the margins on those they did. You company ZICA limited has worn the bid to give consultancy to (KINE).

Required:

(a) Explain in detail the various types of risks which can be identified with the KINE Company. (5 marks)

(b) Advise on how the risks can be mitigated using a suitable model. (15 marks)

[Total: 20 Marks]

QUESTION FOUR

The Nsofu Trading company management has found that the whole of corporate strategy analysis points toward changes to the aggregate performance of the businesses in the portfolio to expect that will help to achieve corporate objectives. It has seen that it needs to make corporate strategy changes that will close the performance gaps that it has noticed in its operations. These performance gaps it has found to exist, it must take quick action.

Required:

(a) Analyze and advise the five (5) basic types of action that top management of this company can take to reduce or close the gap between the target and projected levels of corporate performance. (10 marks)

(b) Advise the ones this company should use, justifying your choices. (10 marks)

[Total: 20 Marks]

QUESTION FIVE

You are a General Manager in charge of the mining operations of your multinational company in Northwestern province of Zambia. You employ mainly local workers on very low wages with a few experienced ones from the Copperbelt. Your operations provides livelihood for more than 1,500 families and is the mainstay of the local economy. In this area there is no any other local work other than subsistence farming and charcoal burning. You have discovered many safety problems with the mines but the company engineer has advised that the cost of upgrading facilities would make the mine uneconomic. Closing the mine would cause a major political stir and harm to the company reputation. But keeping it open risks that chance of major disaster.

Required:

(a) Discuss some of the points to consider when managing ethics at an organization to avoid ethics dilemma. (12 marks)

(b) Explain four (4) functions of corporate strategy. (8 marks)

[Total: 20 Marks]

END OF PAPER

CA 2.6 STRATEGIC BUSINESS ANALYSIS SUGGESTE SOLUTIONS

SOLUTION ONE

a) Arelatively simple distinction between different organisational is whether the structure is centralised or decentralized. The distinction is particularly relevant to organisations that are operating across multiple locations which are geographically dispersed.

Centralisation means control is retained at the centre of an organisation, for example at head Office. Centralisation facilitates control and standardization. There is greater degree of central control.

Decentralisation is the devolution of control to subsidiary businesses to utilize local talent and local knowledge. There is greater degree of delegated authority to regions and sub-units.

b) The strategic control Processes

These include the following:

i. Supervision

Johnson et al (2002) suggest that direct supervision can be used for strategic control. It is often used for overall control in small organisations and in larger ones displaying little complexity.

ii. Planning process

Planning processes is synonymous with budgetary control. It is also regarded as schemes for standardisation of work processes and IT- based enterprise resource planning systems as falling into this category. Simple and stable environments are best for this kind of approach.

iii. Self-control

Control can be exercised indirectly by promoting a high degree of employee motivation. When combined with autonomy, this can lead to both the exploitation of knowledge and effective co-ordination of activities by individuals with one another. The role of management is then not to supervise but to provide appropriate channels for interaction and for knowledge creation and information use.

iv. Cultural processes

Cultural control processes are indirect and internalised by employees as they absorb the prevailing culture and its norms of behavior and performance. Culturally conditioned behavior can provide effective responses to environmentsthat both dynamic and complex; it can be just as effective in a bureaucracy as in an informative, innovative, project based organization.

v. Market Control

Johnson *et al* note that organization are used to market relationships with entities such as suppliers, outside the boundaries of their own systems. Attempts have been made to bring the responsibilities, self-regulating discipline and efficiency of the market inside those boundaries.

c) Advantages of Decentralisation

	Advantage	Comment
i.	Workload	It reduces stress and burdens of senior management
ii.	Job	It provides subordinates with greater job satisfaction by giving them more say in making decisions which affect their work.
iii.	Local knowledge	Subordinates may have a better knowledge than their senior management of 'local' conditions affecting the area of work.
iv.	Flexibility and speed	Delegation should allow greater flexibility and quicker response to changing conditions.
v.	Training	Management at middle and junior levels are groomed for eventual senior management positions.
vi.	Control	By establishing appropriate sub-units or profit centres to which authority is delegated, the system of control within the organisation might be improved.

i) Yes, DRAAM Zambia should adopt this as the best forms of strategic control given the nature of the organisation so that the holding firm can:

- Serve the local customers in line with their offer appeal which differ from region to region.
- Allow subordinates in various regions who have knowledge local environment make appropriate decisions unlike their senior managers at the centre.
- Concentrate on investing into new opportunities and areas not covered by existing business in the federation.
- Concentrate on shared values and a style that will bind the federation.

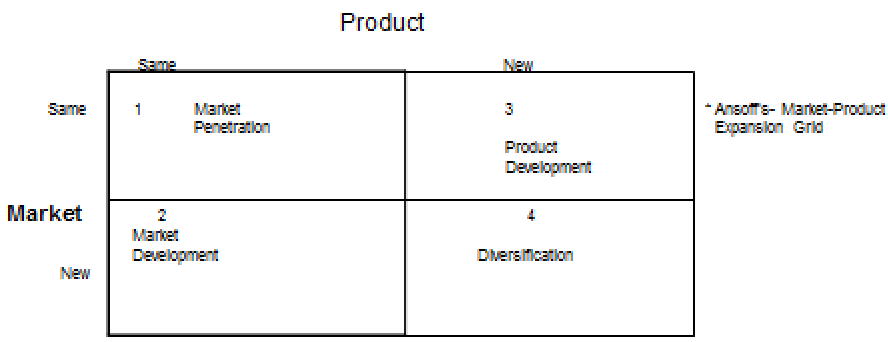
ii) Goold and Campbell (2002) proposed nine tests that may be used to assess proposed structures. These include:

- **Market Advantage –** Where process must be closely co-ordinate in order to achieve market advantage, they should be in the same structural element.
- **Parenting advantage –** The structure should support the parenting role played by the corporate centre.
- **People test:** The structure should be suited to the skills and experience of the people that have to function with it.
- **Feasibility test:** This test sweeps up all the constraints, such as those imposed by law, stakeholder opinion and resource availability.
- **Specialised culture:** Specialists should be able to collaborate closely
- **Difficult links:** It is highly likely that some inter-departmental links will be subject to friction and strain.
- **Redundant hierarchy:** The structure should be as flat as is reasonably attainable.
- **Accountability:** Effective control requires clear lines of accountability.

- **Flexibility:** The structure should allow for requirements to change in the future, so that unexpected opportunities can be seized,, for example

SOLUTION TWO

INTENSIVE GROWTH STRATEGIES



1. MARKET PENETRATION

Market penetration looks at selling the same product in the same market. This means you must penetrate the market even deeper. You must find ways of having new customers within your market and also to find other ways of using your product. Tell the customers that the product can be used for other purposes and in many ways. A lot of intensive advertising is used.

2. MARKET DEVELOPMENT

This means you are in the new market but with the same product. This is called market development. Market development therefore means the same product is sold in new market. You are introducing the product to new customers. You are actually looking for market elsewhere. You will look for other buyers other than the usual ones you have been selling to. You also advertise to new customers and also customers in other areas and from substitute goods to make them aware.

3. PRODUCT DEVELOPMENT

A new product with improved features will be sold in the same market. In this strategy the customers are the same but you bring in a new product one with new attributes or features.

4. DIVERSIFICATION

Diversification makes sense when god opportunities can be found outside the present businesses, that is, product and market (consumers). A good opportunity is one in which the industry is highly attractive and the company has the mix of business traits to be successful. There are three types of diversification.

a) <u>Concentric Diversification</u>

The company would seek new products that have technological and/or marketing synergies with existing product lines even though the new products themselves may appeal to a different group of customers.

b) Horizontally diversification Strategy.

The company might search for new products that could appeal to its current customers even though the new products are technologically unrelated to it current product line.

c)Conglomerate Diversification Strategy

The company might seek new businesses that have no relationship to the company's current technology, products or markets.

SOLUTION THREE

(a) Explain in details various types of risks which can be identified with KINE company.

i- **Economic Risk:** Assumptions about the economic environment may be incorrect, and the organization may be adversely affected as a result.

ii- **Financial Risk:** A business can be affected by loss of revenue.

iii- **Product Risk:** Revenues from products fall because of low sales loss of market.

iv- **Reputation Risk:** Loss of company reputation caused by the adverse consequences of anther risk.

(b) **Advise on how the risks can be mitigated.**

Use the TARA Model to mitigate the risks.

Severity			
		Low	High
	Low	**Accept:** Risk are not significant, keep under view, but costs of dealing with risks unlikely to be worth the benefits	**Transfer:** Insure or implement contingency plans. Reduction of severity of risk will minimize insurance premiums
Frequency			
	High	**Reduce or control:** Take some action, e.g. enhanced control systems to detect problems or contingency plans to reduce the impact.	**Avoid or Abandon** Take immediate action, e.g. changing major suppliers or abandon the activities

1. **Businesses in the portfolio**. This option essentially involves renewed corporate efforts to get better performance out of its current business units. Squeezing out better short-term performance, if pursued too zealously, can impair long-term performance of the adversely affected business units.
2. **Add new business units to the corporate portfolio.** Making new acquisitions and/or implementing internal start-up of new businesses to boost overall performance, however, raises some new strategy issues. Expanding the corporate portfolio to close a performance gap means taking a close look at (a) what kind or size of new business should be added and what, if any, types of strategic fit they should have; (b) how the new units would be absorbed into or grafted onto the present corporate structure; (c) what specific features should be

looked for in the acquisition candidates; and (d) whether portfolio expansion can be financed without shortchanging the present business units.

3. **Delete weak-performing or money-losing businesses from the corporate portfolio.** The most likely candidates for divestiture are the businesses that are in a weak competitive position or in a relatively unattractive industry or in an industry which does not "fit."

4 **Join forces with other groups to try to alter conditions responsible for subpar performance potentials.** In some situations, concerted actions with rival firms,tradeassociations, suppliers, unions, customers,or other interested groups may help ameliorate adverse performance prospects. Forming or supporting a political action group may be an effective way to lobby for solutions to import-export problems, tax disincentives, and onerous regulatory requirements.

5 **Reduce corporate objectives.** On occasion, adverse economic circumstances or declining fortunes in one or more big business units can render corporate objectives unreachable. Closing the gap between actual and desired performance may then require downward revision of corporate objectives to bring them more in line with reality. As a practical matter, tough, this tends to be a "last resort" option, being used only after other options have come up short.

SOLUTION FOUR

a) Action to be taken to close strategic gaps will include the following:

i. Alter the strategic plans for some (or all) of the businesses in the portfolio. This option essentially involves renewed corporate efforts to get better performance out of its current business units. Squeezing out better short-term performance, if pursued too zealously, can impair long-term performance of the adversely affected business units.

ii. Add new business units to the corporate portfolio. Making new acquisitions and/or implementing internal start-up of new businesses to boost overall performance, however, raises some new strategy issues. Expanding the corporate portfolio to close a performance gap means taking a close look at (a) what kind or size of new business should be added and what, if any, types of strategic fit they should have; (b) how the new units would be absorbed into or grafted onto the present corporate structure; (c) what specific features should be looked for in the acquisition candidates; and (d) whether portfolio expansion can be financed without shortchanging the present business units.

iii. Delete weak-performing or money-losing businesses from the corporate portfolio. The most likely candidates for divestiture are the businesses that are in a weak competitive position or in a relatively unattractive industry or in an industry which does not "fit."

iv. **Join forces with other groups to try to alter conditions responsible for subpar performance potentials.** In some situations, concerted actions with rival firms,tradeassociations, suppliers, unions, customers,or other interested groups mayhelp ameliorate adverse performance prospects. Forming or supporting a political action group may be an effective way to lobby for solutions to import-export problems, tax disincentives, and onerous regulatory requirements.

v. Reduce corporate objectives. On occasion, adverse economic circumstances or declining fortunes in one or more big business units can render corporate objectives unreachable. Closing the gap between actual and desired performance may then require downward revision of corporate objectives to bring them more in line with reality. As a practical matter, tough, this tends to be a "last resort" option, being used only after other options have come up short.

b) i., ii., iv., v.

SOLUTION FIVE

(a) Discuss any 4 of the points to consider when managing ethics at an organization to avoid

ethics dilemma.

The following are some points to consider in managing ethics at the workplace:

- Understand the benefits of ethical conduct.
- Focus on ethical conduct from corporate level.
- Develop a code of ethical conduct.
- Promote ethical processes and operations.
- Link ethics to other management practices.
- Demonstrate ethical practices.
- Allocate roles and responsibilities.
- Identify and model industry benchmarks.

(b) Explain four (4) functions of corporate strategy.

- <u>Building and Managing a high – performing</u> Portfolio of business units (making acquisitions, strengthening existing business positions, divesting businesses that no longer fit into management's plans.
- Capturing the synergy among related business Units and turning it into a competitive advantage.
- Creation of opportunities and transfer of skills and Share of experts or facilities.
- <u>Establishing investment priorities</u> and steering corporate resources into business with the most attractive opportunities.
  - Reviewing/revising/unifying the major strategic approaches and moves proposed by SBU managers.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA 3.1: ADVANCED FINANCIAL REPORTING

MONDAY 12 SEPTEMBER 2022

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. Present Value and Annuity tables are attached at the end of this paper.

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

SECTION A

This question is compulsory and must be attempted.

QUESTION ONE – (COMPULSORY)

The following draft statements of financial position relate to Kambombo plc and its investees, Mulilo plc and Lundu plc as at 31 December 2022:

	Kambombo	Mulilo	Lundu
	K'm	K'm	K'm
Assets			
Non current assets			
Tangible	3,900	1,900	1,730
Intangible	100		
Equity Investments	3,800		
Current assets	2,300	1,090	1,270
Total Assets	10,100	2,990	3,000
Equity and Liabilities:			
Equity			
Share Capital K1	2,400	840	640
Retained Earnings	2,200	796	810
Other Reserves	2,100	424	670
Total Equity	6,700	2,060	2,120
Non current liabilities	2,400	800	330
Current Liabilities	1,000	130	550
Total Equity and Liabilities	10,100	2,990	3,000

Additional information**:**

(i) Kambombo acquired 85% of Mulilo's equity on 1 January 2015 at a cost of K1,800 million when the retained earnings and other reserves of Mulilo were K520 million and K380 million respectively. The fair value of Mulilo's identifiable net assets and a 15% holding in Mulilo at 1 January 2015 were K1,810 million and K200 million respectively. It is Kambombo's policy to initially measure Non controlling interests on the acquisition of Mulilo at the fair value of their holding. The excess of the fair value of Mulilo's identifiable net assets over their carrying amounts was attributable to an item of plant which had a remaining useful life of 12 years at 1 January 2015.

(ii) The Kambombo group has recognised total impairment losses amounting to K50 million in respect of goodwill on acquisition of Mulilo in reporting periods prior to 1 January 2022.

(iii) On 1 July 2022, Kambombo disposed of a 25% holding in Mulilo for cash consideration amounting to K600 million. The fair value of Kambombo's remaining holding in Mulilo on that date was K1,350 million. Kambombo has not accounted for this disposal in the drafts financial statements apart from crediting the full disposal proceeds to profit or loss.

(iv) Kambombo acquired 68% of Lundu's equity on 1 January 2020 at a cost of K960 million when the retained earnings and other reserves of Lundu were K400 million and K200 million respectively. The fair value of Lundu's identifiable net assets and of a 32% holding in Lundu's equity at 1 January 2020 was K1,300 million and K600 million respectively. It is Kambombo's policy to initially measure Non controlling interests on the acquisition of Lundu at fair value. The excess of the fair value of Lundu's identifiable net assets over their carrying amounts was attributable to an item of plant which had a remaining useful life of four (4) years at 1 January 2020.

Kambombo acquired a further 12% of Lundu's equity on 1 April 2022 at a cost of K220 million.

(v) Impairment reviews were carried out at 31 December 2022 in respect of Mulilo and Lundu as cash generating units. The recoverable amounts in respect of the net assets of Mulilo and Lundu at 31 December 2022 were K2,100 million and K2,160 million respectively. In both cases, assume that any impairment losses have arisen at the year end.

(vi) Kambombo's investments in Mulilo and Lundu are the only items making up equity investments in Kambombo's statement of financial position. In preparing its separate financial statements, Kambombo has NOT made any election with regard to the alternative measurement basis in accordance with IFRS 9 Financial Instruments.

(vii) A summary of Kambombo, Mulilo and Lundu results from their statements of profit or loss and other comprehensive income for the year ended 31 December 2022 are as follows:

	Kambombo	Mulilo	Lundu
	K'm	K'm	K'm
Profit for the Year	720	48	72
Other Comprehensive Income	120	36	24
Total Comprehensive Income	840	84	96

It must be assumed, unless otherwise implied that all items of total comprehensive income arise evenly over the year.

(viii) During the year to 31 December 2022, the Directors of Mulilo Plc have approved a plan to restructure its retail operations. The plan whose execution begins towards the end of the year to 31 December 2023 and is scheduled to complete before the end of that year has the following estimated expenditure:

	K'm
Staff redundancies	50
Retraining continuing staff	15
Total	65

The estimated cost of the restructuring has not been accounted for in the draft accounts above.

Required:
Prepare the Kambombo Group Consolidated Statement of Financial Position as at 31 December 2022. **[Total: 40 Marks]**

SECTION B

There are FOUR (4) questions in this section.

Answer ANY Three (3) questions in this section.

<u>QUESTION TWO</u>

Mulopwe Plc is a manufacturing entity that is listed on the Lusaka Securities Exchange. The Directors of Mulopwe Plc seek advice on how they must account for the following transactions in preparing financial statements for the year to 31 December 2022:

Transaction 1 – Conversion of Loan Notes
On 1 January 2021, Mulopwe Plc had issued 2 million 10% K10 convertible loan notes at a premium of 2%. Issue costs amounted to K100,000. Loan note holders are entitled to convert each note into 5 K1 equity shares at any time starting from 31 December 2022. Any note remaining unconverted will be redeemed at par on 31 December 2024. The loan notes give periodic interest payments on 31 December each year over their term to maturity. The original effective interest rate on the liability component of the loan notes has been correctly computed as 11.67%. Mulopwe was in a position to issue similar notes but without conversion rights at a market interest rate of 11.5%. (6 marks)

Transaction 2 – Investment in loan Notes
On 1 January 2021, Mulopwe Plc made an investment by buying 1 million 8% K10 loan notes in Zambia Garsu Plc at par. The loan notes pay interest on 31 December each year over their three (3) year term to maturity. They are redeemable at par and have an original effective interest rate of 8%. Broker fees (transaction costs) paid by Mulopwe Plc on 1 January 2021 in respect of the transaction amounted to K100,000. The specific market interest rates relating to the loan notes were 9.5% and 9.8% on 31 December 2021 and 2022 respectively. Mulopwe Plc 's investments in loan notes of other entities are either held till maturity or sold before maturity. (8 marks)

Transaction 3 – Investment in Equity shares
On 1 July 2022, Mulopwe Plc made another investment by buying 3 million K1 equity shares in Silangwa Plc at a price (fair value) of K4.50 per share. Transaction costs paid by Mulopwe Plc on 1 July 2022 amounted to K80,000. Each Silangwa equity share was trading at a price of K4.40 on 31 December 2022. Mulopwe Plc received a dividend of K0.2 per share from these shares in December 2022. Mulopwe Plc has not made any election with regard to accounting for these shares. (6 marks)

Required:

Explain to the Directors of Mulopwe Plc how the above transactions must be accounted for in the Financial Statements of Mulopwe Plc for the year to 31 December 2022.

[Total: 20 Marks]

QUESTION THREE

ZICAMUNOBE Plc prepares its Financial Statements to 31 March each year. Notes 1 and 2 contain information relevant to these Financial Statements:

Note 1 – Sale and leaseback of property

On 1 April 2022, ZICAMUNOBE sold a property to BONILEASE plc for its fair value of K1,500,000. The terms and conditions of the sale satisfy the sale and leaseback requirements of IFRS 15 – Revenue from Contracts with Customers. The carrying amount of the property in the Financial Statements of ZICAMUNOBE at 1 April 2022 was K1,000,000. The estimated future useful life of the property on 1 April 2022 was 20 years. On 1 April 2022, ZICAMUNOBE entered into an agreement with BONILEASE under which ZICAMUNOBE leased the property back. The lease term was for five years, with annual rentals of K100,000 payable in arrears. The annual rate of interest implicit in the lease was 10% and the present value of the minimum lease payments on 1 April 2022 was K379, 100. (10 marks)

Note 2 – Purchase of new machine

On 1 April 2022, ZICAMUNOBE purchased a machine from a foreign supplier based in Zimbabwe. The cost of the machine was 900,000 Zimbabwean Dollar. ZICAMUNOBE paid this amount to the supplier on 30 June 2022. The estimated useful life of the machine at 1 April 2022 was eight years. However, the machine contains a component which will need replacing after four years. On 1 April 2022, the Directors of ZICAMUNOBE estimated that 30% of the original cost of the machine was attributable to this component. Relevant exchange rates (Zimbabwean Dollar to K1) were as follows:

Date	Exchange rate (Zimbabwean Dollar to K1)
1 April 2022	3
30 June 2022	2.5
31 March 2023	2.4

ZICAMUNOBE uses the cost model to measure all of its property, plant and equipment.

(10 marks)

Required:

Using the information in notes 1 and 2 explain and show how the two events would be reported in the financial statements of ZICAMUNOBE for the year ended 31 March 2023.

[Total:20 Marks]

QUESTION FOUR

(a) Zampension Ltd is a government business entity in Zambia. Zampension Ltd operates a defined benefit scheme which at 31 December 2019 was in deficit by K120 million. Details for the year ended 31 December 2020 are as follows:

	K'million
Current service cost	55
Cash contribution to the scheme	100
Benefits paid in the year	80
Net loss on curtailment	11
Gain on remeasurement of liability at 31 December 2020	9

The rate of interest applicable to corporate bonds was 5% and 8% at 31 December 2019 and 31 December 2020 respectively. The cash contributions for the scheme have been correctly accounted for in the financial statements for the year ended 31 December 2020. This is the only adjustment that has been made in respect of the scheme.

Required:

Recommend the correct accounting treatment of the above transactions to the Directors of Zampension Ltd in the Financial Statements for the year ended 31 December 2020, including Financial Statements extracts in accordance with *IAS 19: Employee Benefits.* (5 marks)

(b) Bonibank Ltd is a Government-controlled bank. Bonibank Ltd was taken over by the Government of Zambia during the recent financial sector clean up by the Bank of Zambia. Bonibank Ltd does not directly trade with other government-controlled banks but has underwritten the development of the nationally owned postal service and the newly created Technology and Science Ministry. The Directors of Bonibank Ltd are concerned about the volume and cost of disclosing its related party interests because they extend theoretically to all other Government-controlled enterprises and banks. The Directors require general advice on the nature and importance of the disclosure of related party relationships and specific advice on the disclosure of the above relationships in the financial statements.

Required:

Advise the Directors of the company on how to deal with the above transaction in the Financial Statements in accordance with *IAS 24: Related Party Disclosures*.

(5 marks)

(c) IAS 8 *Accounting Policies, Changes in Accounting Estimates and Errors* contains guidance on the use of accounting policies and accounting estimates.

Required:

Explain the basis on which the management of an entity must select its accounting policies and distinguish, with an example, between changes in accounting policies and changes in accounting estimates. (5 marks)

(d) IFRS 2: "Share-based Payment", defines a share-based payment transaction as one in which an entity receives goods or services from a third party (including an employee) in a share-based payment arrangement. IFRS 2 further defines a share-based payment arrangement as an agreement between an entity and a third party which entitles the third party to receive either:

Equity instruments of the entity (equity-settled share-based payments); Cash or other assets based on the price of equity instruments of the entity (cash-settled share-based payments). Share-based payment arrangements are often subject to vesting conditions which must be satisfied over a vesting period.

Required:

Explain the principles of recognition and measurement for share-based payments as set out in IFRS *2 Share-based Payments*.

(5 marks)
[Total 20 Marks]

QUESTION FIVE

Lyndal Plc (Lyndal) operates in the manufacturing industry and has operations throughout Zambia. Lyndal has applied for a loan amounting to K300 million from a financial institution where you are employed. Your immediate supervisor was working on the report and recommendation in response to Lyndal Plc's loan application but has decided to delegate to you. You have therefore been tasked with the preparation of a financial analysis report on Lyndal for the next management meeting to discuss applications for lending.

Extracts from the Lyndal Plc financial statements for recent periods are as follows:

Statement of financial position as at 31 December:

	2022	**2021**
	K'm	**K'm**
Assets		
Non current		
Property ,plant and equipment	1,096	930
Intangible	58	48
	1,154	978
Current		
Inventory	292	240
Receivables	230	250
FVTPL equity investments	62	36
Cash and cash equivqlents	-	82
	584	608
Total assets	1,738	1,586

Equity and liabilities		
Equity		
Share capital (K1 shares)	240	240
revaluation reserve	36	-
Retained earnings	586	366
Share Premium	130	122
	992	728
Non current liabilities		
Loan term loans	180	360
Current liabilities		
Bank overdraft	100	-
Trade payables	370	320
Current tax	96	178
	566	498
Total equity and liabilities	1,738	1,586

Statement of Profit or Loss and Other Comprehensive Income for the year ended 31 December:

	2022 K'm	2021 K'm
Revenue	2,400	2,800
Cost of sales	(1,680)	(1,860)
Gross profit	720	940
Distribution costs	(80)	(90)
Administrative expenses	(260)	(240)
Finance costs	(22)	(30)
Profit before tax	358	580
Income tax expense	(100)	(170)
PROFIT FOR THE YEAR	258	410
Other comprehensive income		
Revaluation of property	36	-
Total comprehensive income	294	410

Further information:

(a) In February 2021, a new competitor entered one of Lyndal's markets and pursued an aggressive strategy of increasing market share by undercutting Lyndal's prices and prioritising volume sales. The directors had not anticipated this as Lyndal had been the market leader in this area for the past few years.

(b) Minutes from the most recent meeting of Lyndal's Board of Directors state that the directors believe they can implement a new strategy to regain Lyndal's market position in this segment, providing long term funding can be secured. Lyndal acquired existing operations from another entity during the year as part of the new strategy and revenue is forecast to increase by the second quarter of 2023.

(c) A meeting is scheduled with Lyndal's main suppliers to discuss a reduction in costs for bulk orders.

(d) The existing long-term loan is due to be repaid on 1 February 2023.

(e) Gains of K18 million generated by the fair value through profit or loss (FVTPL) financial assets have been offset against administrative expenses.

Required:

(a) Analyse Lyndal Plc's financial performance and financial position and recommend whether or not it's application for borrowing should be approved. (15 marks)

(b) Explain what further information might be useful in assessing Lyndal's future prospects and its ability to service a new long term loan. (5 marks)

[Total: 20 Marks]

END OF PAPER

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

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

CA 3.1 ADVANCED FINANCIAL REPORTING SUGGESTED SOLUTIONS

SOLUTION ONE

Kambombo Plc Group CSFP as at 31.12.2022

		K'm
Assets		
Non current assets		
Tangible (W)		7,568.3
Goodwill (W)		91.7
Other Intangible assets		100
		7,760
Current assets	(2300+1090+1270)	4,660
Total Assets		12,420
Equity and Liabilities:		
Equity		
Share Capital K1		2,400
Retained Earnings (W)		918.4
Other Reserves (W)		2,438.3
Equity attributable to owners of parent		5,756.7
Non controlling Interest	(740.1[W9]+663.2[W10])	1,403.3
Total Equity		7,160
Non current liabilities	(2,400+800+330)	3,530
Current Liabilities	(1,000+130+550+50)	1,730
Total Equity and Liabilities		12,420

Workings to the CSFP

W1. PPE

			K'm
Given amounts:			
Kambombo			3,900
Mulilo			1,900
Lundu			1,730
Adjustments:			
FV gain on acqui of Mulilo	(1,810-840-520-380)		70
FV gain on acqui of Lundu	(1,300-640-400-200)		60
Accum. FV deprec:			
Mulilo	70/12X8		(46.7)
Lundu	60/4X3		(45)
Impairment losses:			
Mulilo		(W)	-
Lundu		(W)	-
			7,568.3

W2. Goodwill on acquisition of:

		K'm
a) Mulilo		K'm
Cost of acquisition		1,800
NCI at acquisition		200
FV of identifiable NA at acquisition		(1,810)
Goodwill at acquisition		190
Impairment losses prior to 1.1.2022		(50)
Bal b/d 1.1.2022		140
Impairment loss in y/e 31.12.2022	(W)	(73.3)
Bal c/d 31.12.2022		66.7

b) Lundu		K'm
Cost of acquisition		960
NCI at acquisition		600
FV of identifiable NA at acquisition		(1,300)
Goodwill at acquisition		260
Impairment losses prior to 1.1.2022		(-)
Bal b/d 1.1.2022		260
Impairment loss in y/e 31.12.2022	(W)	(235)
		25
Total Goodwill tp report	(25+66.7)	91.7

W3. Impairment review of Mulilo and Lundu as CGUs.

a) Mulilo

		K'm
Carrying amount of net assets at 31.12.2022:		
Identifiable:		
- Given per SFP		2,060
- FV gain net of deprec	(70-46.7)	23.3
- Provision		(50)
		2,033.3
Goodwill b/d 1.1.2022		140
		2,173.3
Recoverable amount		2,100
Impairment loss		73.3
Allocation of loss:		
- Goodwill		(73.3)
- PPE		-
		-

b) Lundu

		K'm
Carrying amount of net assets at 31.12.2022:		
Identifiable:		
- Given per SFP		2,120
- FV gain net of deprec	(60-45)	15
		2,135
Goodwill		260
		2,395
Recoverable amount		2,160
Impairment loss		235
Allocation of loss:		
- Goodwill		(235)
- PPE		-
		-

W4. Retained earnings

	K'm
Kambombo RE at 31.12.2022	2,200
Share of post acquisition RE of :	
Mulilo 85%[772(W)-520]+60%[796-772(W)]	228.6
Lundu 68%[756(W)-400]+80%[810-756(W)]	285.3
Reversal of remeasurement gains on FVTPL investments:	
(3800-1800-960-220)	(820)

Reversal of proceeds of disposal of 25% holding in Mulilo		(600)
Goowill impairment losses:		
- Mulilo	85%X50+60%X73.3)	(86.5)
- Lundu	80%X235	(188)
Fv depreciation:		
- Mulilo	[85%X7.5/8+60%X0.5/8]X46.7	(39.0)
- Lundu	[68%X2.25/3+80%X0.75/3]X45	(32.0)
Provision for restructuring by Mulilo 50X60%		(30)
		918.4

W5. Mulilo reserves at 1.7.2022

		Retained Earnings K'm		Other reserves K'm
Balances at 31.12.2022		796		424
Less last 6 months CI	6/12X48	(24)	6/12X36	(18)
Balances at 1.7.2022		772		406

W6. Lundu reserves at 1.4.2022

		Retained Earnings K'm		Other reserves K'm
Balances at 31.12.2022		810		670
Less last 6 months CI	9/12X72	(54)	9/12X24	(18)
Balances at 1.7.2022		756		652

W7. Other Reserves

		K'm
Kambombo RE at 31.12.2022		2,100
Share of post acquisition other reserves of :		
Mulilo 85%[406 (W)-380]+60%[424-406(W)]		32.9
Lundu 68%[652(W)-200]+80%[670-652(W)]		321.8
Net adjustment on disposal of 25% in Mulilo:		
Disposal proceeds	600	
Net assets transferred to NCI(W)	(546.1)	53.9
Net adjustment on increasing holding in Lundu		
Net assets from NCI (see NCI working)	149.6	
Less cost of additional 12% holding	(220)	(70.3)
		2,438.3

W8. Net assets transferred to NCI on disposal of 25% holding in Mulilo

			K'm
Mulilo's net assets at 1.7.2022			
	Identifiable		
	Book value	(840+772+406)	2,018
	FV gain		70
	FV deprec	70/12X7.5	(43.8)
			2,044.2
Goodwill b/d 1.1.2022			140
			2,184.2

Transferred to NCI 2184.2X25% = 546.1

W9. NCI in Mulilo

		K'm
At acquisition		200
Post acquisition changes:		
Share of post acquisition:		
- RE	15%[772(W)-520]+40%[796-772(W)]	47.4
- Goowill impairment losses	15%X50+40%X73.3)	(36.8)
- Fv depreciation	[15%X7.5/8+40%X0.5/8]X46.7	(7.7)
- Provision for restructuring by Mulilo	50X40%	(20)
- Other reserves	15%[406 (W)-380]+40%[424-406(W)]	11.1
Net assets transferred from owners of parent		546.1
		740.1

W10. NCI in Lundu

		K'm
At acquisition		600
Post acquisition changes prior to 1.4.2022:		
Share of post acquisition:		
- RE	32%[756(W)-400]	113.9
- FV depreciation	[32%X2.25/3] X45	(10.8)
- Other reserves	32%[652(W)-200]	144.6
NCI at 1.4.2022 before transfer to owners of parent		847.7
Transfer to owners of parent 12/68X847.7		(149.6)
Post acquisition changes from 1.4.2022:		
Share of post acquisition:		
- RE:	20%[810-756(W)]	10.8
- Goowill impairment losses	20%X235	(47)
- Fv depreciation	[20%X0.75/3X45]	(2.3)
- Other reserves	20%[670-652(W)]	3.6
		663.2

SOLUTION TWO

Mulopwe must split the loan notes into the liability component and the equity component at initial recognition (1.1.2021) as follows (IAS 32):

			K'm
Gross issue proceeds 2millionXK10X1.02		20.4	
Less Liability component (PV of loan note cash flows to Maturity at market rate of non convertible debt):			
Principal	(2X10X1.115^-4)	12.94	
Interest (1.1^-1+1.115^-2+1.115^-3+1.115^-4)	= 3.070X10%XK10X2 million	6.14	
			(19.08)
Equity Component Share options			1.32
Net Issue proceeds	(20.4 - 0.1)		20.3
Net liability component	19.08/20.4X20.3		(18.99)
Net Equity Component	1.32/20.4X20.3		1.31

Subsequently, measure the liability component at amortised cost as follows (IFRS 9):

		K'm
Initial amount at 1.1.2021		18.99
Finance cost y/e 31.12.2021	18.99X11.67%	2.22
Interest paid at 31.12.2021	K10X10%X2 million	(2)
Carrying amount at 31.12.2022		19.21
Finance cost to report in SPL for y/e 31.12.2022	19.21X11.67%	2.24
Interest paid at 31.12.2022	K10X10%X2 million	(2)
Carrying amount to report in SFP at 31.12.2022 (as non current liability)		19.45

Transaction 2

The financial asset (investment) is a debt instrument asset recoverable through contractual interest and principal cashflows and for which the business model is either to hold till maturity or sell before maturity. Therefore the instrument will be classified as a FVTOCI asset. The asset will therefore be initially measured at FV including transaction costs and subsequently remeasured to FV each reporting date with gains and losses reported as OCI. However, finance income will be reported in P/L. The following amounts are applicable for the y/e 31.12.2022:

		K'm	
Carrying amount b/d 1.1.2022 (FV at 31.12.2021) [(1.095^-1+1.095^-2)X8%XK10X1 million + 1.095^-2XK10X1 million]			9.74
Finance income to report in P/L for y/e31.12.2022 9.74X9.5%		0.93	
Interest received on 31.12.2022	8%XK10X1 million		(0.80)

Carrying amount at 31.12.2022 before remeasurement		9.87	
Remeasurement gain to report in OCI	(balance)		(0.03)
FV to report in the SFP at 31.12.2022 [8%xK10+K10]x1 millionX1.098^-1		9.84	

Transaction 3

The financial asset (investment) is an equity instrument asset for which there is irrevocable election to designate as an FVTOCI item. The default classification of FVTPL will therefore apply. The asset will initially be measured at FV without including transaction costs. Transaction costs will be expensed in P/L for the period the contract is entered (in this case y/e 31.12.2022). Subsequently, the asset must be remeasured to FV each reporting date with gains/losses reported in P/L. dividends received will also be reported in P/L. The following amounts are applicable for the y/e 31.12.2022:

K'm

Initial carrying amount at 1.7.2022 (FV)	4.5X3 million	13.5
Remeasurement loss to report in P/L for the y/e 31.12.2022	(bal)	(0.30)
Carrying amount to report in SFP at 31.12.2022 (FV)	4.4X3 million	13.2
Net investment income to report in P/L for y/e 31.12.2022:		
Transaction costs		(0.08)
Dividend income	0.2X3 million	0.6
Remeasurement loss		(0.30)
		0.22

SOLUTION THREE

Note 1 Sale and leaseback

Because the sale of the building by ZICAMUNOBE satisfies the requirements in IFRS 15 – Revenue from Contracts with Customers – ZICAMUNOBE will de-recognise the building on 1 April 2022.

ZICAMUNOBE will recognise a 'right of use asset' on 1 April 2022.

The right of use asset will be measured as a percentage of the previous carrying amount of K1 million which relates to the right of use retained by ZICAMUNOBE. This percentage is 25·27% (K379,100/K1·5 million). This means that the carrying amount of the right of use asset will be K252,700 (K1 million x 25·27%).

The gain on sale of property to be recognised in ZICAMUNOBE's statement of profit or loss is restricted to the rights transferred. The total gain is K500,000 (K1·5m – K1m). The percentage of this gain to be recognised is 74·73% (100% – 25·27%). This means that the gain which will be recognised will be K373,650 (K500,000 x 74·73%).

The right of use asset will be depreciated over the lease term, which is five years. Therefore depreciation of K50,540 (K252,700 x 1/5) will be charged in the statement of profit or loss. The statement of financial position at 31 March 2023 will show a right of use asset of K202,160 (K252,700 – K50,540) under non-current assets.

ZICAMUNOBE will show a finance cost of K37,910 (K379,100 x 10%) in the statement of profit or loss for the year ended 31 March 2023.

The closing lease liability will be K317,010 (K379,100 + K37,910 – K100,000).

The amount of the overall liability which is current will be K68,299 (K100,000 – {K317,010 x 10%}).

The balance of the liability of K248,711 (K317,010 – K68,299) will be non-current.

Tutorial note: The amount of the gain on sale which is recognised by ZICAMUNOBE could alternatively be computed as follows:

The total gain x (The fair value of the asset – the lease liability)/The fair value of the asset

In this case this would give: K500,000 x ((K1,500,000 – K379,100)/K1,500,000) = K373,633 (difference to above K373,650 due solely to rounding)

Candidates who adopt an approach of this nature will receive full marks.

Note 2 – New machine.

The machine would originally be recognised in the financial statements on 1 April 2022 using the rate of exchange in force at that date (3 Zimbabwean Dollar to K1).

Therefore the initial carrying amount of the machine would be K300,000 (900,000/3). This will also be the initially recognised amount of the associated liability.

When the liability is settled on 30 June 2022, ZICAMUNOBE will have to pay K360,000 (900,000/2·5). The difference of K60,000 (K360,000 – K300,000) between the original liability and the settlement amount will be an exchange loss which will be recognised in the statement of profit or loss as an operating expense.

Because the machine is a non-monetary item which is measured under the cost model, its carrying amount will not be affected by future currency fluctuations. Because part of the machine will need to be replaced after four years, depreciation needs to be accounted for by splitting the asset into two depreciable components.

The amount of the initial carrying amount which relates to the component which needs replacing after four years is K90,000 ((K300,000 x 30%). Depreciation on this component in the year ended 31 March 2023 will be K22,500 (K90,000 x ¼).

Depreciation on the remainder of the asset for the year ended 31 March 2023 will be K26,250 (K{300,000 – K90,000} x 1/8).

The closing carrying amount of the asset which will be included as a non-current asset within property, plant and equipment will be K251,250 (K300,000 – K22,500 – K26,250).

SOLUTION FOUR

a)Pension scheme

The defined benefit scheme for the year should have been recorded as follows:

	K million
Net obligation at 31 December 2019	120
Cash contribution into the scheme	(100)
Net finance cost for the year (K120 million x 5%)	6
Current service cost	55
Loss on curtailment	11
Gain on remeasurement	(9)
Net liability at 31 December 2020	83

The benefits paid do not affect the net liability for the year. Since only the cash contributions have been recorded for the year, the net obligation should be increased by K63 million (K83 million – K20 million (120 -100). K72 million should be expensed to profit or loss being the service cost component (current and curtailment) plus the interest charge. K9 million should be credited to other components of equity being the gain on remeasurement.

Statement of profit or loss extract for the year ended (Extract)

	K million
Defined benefit scheme (K55 + K6 + K11)	(72)

Statement of financial position extract

	K million
Equity and liability:	
OCI – remeasurment component	9
Non-current liabilities:	
Increased in defined benefit obligation	63

b)Under IAS 24: *Related Party Disclosures*, disclosures are required in respect of an entity's transactions with related parties. Related parties include parents, subsidiaries, members of key management personnel of the entity or of a parent of the entity and post-employment benefit plans. Where there have been related party transactions during the period, management discloses the nature of the relationship, as well as information about the transactions and outstanding balances, including commitments, necessary for users to understand the potential impact of the relationship on the financial statements. Disclosure is made by category of related party and by major type of transaction. Management only discloses that related party transactions were made on terms equivalent to those which prevail in arm's length transactions if such terms can be substantiated.

Government-related entities are defined as entities which are controlled, jointly controlled or significantly influenced by the government. The financial crisis in the financial services sector in Zambia widened the range of entities subject to the related party disclosure requirements. This is not only peculiar in Zambia but many countries. The financial support provided by government to financial institutions in many countries meant that the government controls significantly influenced some of those entities.

A government-controlled bank would, in principle, be required to disclose details of its transactions, deposits and commitments with all other government controlled banks and with the Bank of Zambia or central bank. However, IAS 24 has an exemption from all of the disclosure requirements of IAS 24 for transactions between government-related entities and the government, and all other government-related entities.

Bonibank Limited is exempt from the disclosure requirements in relation to related party transactions and outstanding balances, including commitments, in relation to the following:

(a) a government which has control, joint control or significant influence over the reporting entity; and
(b) another entity which is a related party because the same government has control, joint control or significant influence over both the reporting entity and the other entity.

Those disclosures are replaced with a requirement to disclose:

- The name of the government and the nature of their relationship; and
- The nature and amount of any individually significant transactions; and
  - The extent of any collectively significant transactions qualitatively or quantitatively.

c)

IAS 8 *Accounting policies, changes in accounting estimates and errors* requires an entity to determine the accounting policy to apply to a transaction or event by reference to any IFRS specifically applying to that transaction or event. Where there is no specific IFRS applicable, management is expected to **use its judgement** in applying an accounting policy which will result in information which is relevant and reliable.

In this they should consider the requirements and guidance in IFRSs dealing with similar and related issues and also the *Conceptual Framework* definitions, recognition criteria and measurement concepts for assets, liabilities, income and expenses.

Accounting policies are the specific principles, bases and rules applied in measuring and presenting financial information. **Changes of accounting policy are not very common**. One example would be a change from the FIFO method of valuing inventory to the weighted average method – this is a change in the basis of valuation.
A **change of accounting estimate** is a change in the way in which these principles and bases are applied which leads to an adjustment to any of the elements identified by the *Conceptual Framework* – assets, liabilities, income or expenses. One example would be a change from the straight line method of depreciation to the reducing balance method. In this case the accounting policy is that non-current assets are carried at cost less accumulated depreciation, the accounting estimate is how that depreciation is calculated.

D)

RECOGNITION

- An entity shall recognize the goods or services received or acquired in a share-based payment transaction when it obtains the goods or as the services are received.
- When the goods or services received or acquired in a share-based payment transaction do not qualify for recognition as **assets**, they shall be recognized as **expenses**.
- Goods might be consumed over a period of time or, in the case of inventories, sold at a later date, in which case an expense is recognized when the goods are consumed or sold.
- The entity shall recognize a corresponding **increase in equity** if the goods or services were received in an equity-settled share-based payment transaction or a liability if the goods or services were acquired in a cash-settled share-based payment transaction.

MEASUREMENT

- For equity-settled share-based payment transactions, the entity shall measure the goods or services received, and the corresponding increase in equity, directly, at the **fair value of the goods or services** received, unless that fair value cannot be estimated reliably.
- If the entity cannot estimate reliably the fair value of the goods or services received, the entity shall measure their value, and the corresponding increase in equity, indirectly, by reference to the **fair value of the equity instruments** granted.

EQUITY-SETTLED SHARE-BASED PAYMENT TRANSACTIONS

Where payment for goods or services is in the form of shares or share options, the fair value of the transaction-is recognised in profit or loss, spread over the vesting period.

If goods or services are received in exchange for shares or share options the transaction is accounted for by:

Dr.
Expense/Asset
Cr. Equity

IFRS 2 does not stipulate which equity account the credit entry is made to. It is normal practice to credit a separate component of equity, mostly retained earnings are credited.

Measurement

When considering the total expense to profit or loss, the basic principle is that equity-settled share-based transactions are measured at fair value.

Fair value will depend upon who the transaction is with:

- There is a rebuttable presumption that the fair value of goods / services received from a third party can be measured reliably.

It is not normally possible to measure services received when the shares or share options form part of the remuneration package of employees.

CASH SETTLED BASED TRANSACTIONS

- For cash-settled share-based payment transactions, the entity shall measure the goods or services acquired and the liability incurred at the fair value of the liability.
- Until the liability is settled, the entity shall remeasure the fair value of the liability at the end of each reporting period and at the date of settlement, with any changes in fair value recognised in profit or loss for the period.

If goods or services are received in exchange for cash amounts linked to the value of shares, the transactions is accounted for by:

Dr **Expense/Asset**
Cr **Liability**

SOLUTION FIVE

a)
Financial performance

The financial performance of LYNDAL PLC has clearly been affected by the pressure resulting from the new competitor entering the market with revenue falling by 14% from 2021. Gross profit margin has fallen by 4% since 2021 and this could be due to LYNDAL PLC being forced to drop prices to compete with the new competitor.

The net profit margin has fallen from 15% to 11%, however administrative expenses includes the offset of a gain on FVTPL financial assets of K18 million. Without this gain the net profit would have fallen to 10%. The finance costs are still relatively high considering the loan liability has been halved in the year, although it is possible that the loan was actually repaid part way through the year. It should also be noted that LYNDAL PLC now has an overdraft which will be relatively expensive to service.

The return on capital employed has dropped 24% since 2021. Capital employed has reduced in the year, despite a revaluation, mainly due to the loan being repaid. The ROCE, however has fallen, showing the impact that reduced profits has had on the business.
Non-current asset turnover has fallen from 2.9 to 2.1. This is due to reduced revenue, and increases in NCA including the revaluation.. It looks like the investment in PPE has not yet paid off in revenue streams as revenue is down from 2021.

Financial position

The gearing has fallen from 50% to 18% in the year due to the repayment of the loan. The repayment amounted to a significant cash outflow in the year, however the lender must have been assured that LYNDAL PLC could afford to service and repay the loan. The interest cover is more than enough, however the issue will be whether or not LYNDAL PLC will have enough cash to actually pay the interest. In addition, the remaining loan is to be repaid by 2023 and the entity appears to be short of liquid funds.

The current and quick ratios have fallen mainly due to the increased payables and the introduction of the overdraft. The quick ratio has fallen from 0.74 to 0.52 and indicates cash crisis and the fall in current ratio is to 1.03 and so LYNDAL PLC is dangerously close to insolvency.

Receivables are still being collected within 35 days which shows good credit control, or loyal customers. This however is not sufficient to generate adequate liquid funds and payables are being stretched as a result, from 63 days to 80 days. This is not a good policy at a time when there is a new market member as suppliers may choose to switch supplies to them. In addition, LYNDAL PLC needs to negotiate with its suppliers to reduce costs in order to recover the margins and therefore a good relationship is vital.

The increase in inventories days is consistent with the falling revenue, but LYNDAL PLC should test for obsolescence on inventories from the packaging business.

Conclusion and recommendation
LYNDAL PLC has liquidity issues, however the management structure appears to be well organised. Credit control appears to be a priority and the management have made some

good investments, with upward valuations in both non-current assets and held for trading investments.

The minutes of the Board meetings indicate that management are responsive to change and have reacted positively by applying for long term funding prior to the existing loan being repaid and organising a meeting with suppliers to negotiate better terms. LYNDAL PLC is likely to fare better in these meetings if payables have been settled and to this end the funding would assist.

The recommendation is to put the application forward for further consideration.

Appendix – Ratios

	2022	2021
GP Margin = GPX100/Revenue	720X100/2,400 = 30%	940X100/2,800 = 34%
OP Margin = PBITX100/Revenue	(358+22)X100/2,400 = 16%	(580+30)100/2,800 = 22%
PAT Margin = PATX100/Revenue	258X100/2,400 = 11%	410X100/2,800 = 15%
Gearing = DebtX100/Equity	180X100/992 = 18%	360X100/728 = 50%
Current Ratio = Current Assets/Current liabilities	584/566 = 1.03 : 1	608/498 = 1.22 : 1
Quick Ratio = Current Assets less inventory/Current Liabilities	(584-292)/566 = 0.52 : 1	(608-240)/728 = 0.74
Receivables Days = ReceivablesX365/Revenue	230X365/2,400 = 35 days	250X365/2,800 = 33
Payables days = PayablesX365/Cost of sales	370X365/1,680 = 80 days	320X365/1,860 = 63 days
Inventory days = InventoryX365/cost of sales	292X365/1,680 = 63 days	240X365/1,860 = 47 days
ROCE = PBITX100/CE	(358+22)X100/(992+180) = 32%	(580+30)100/(728+360) = 56%
Non current Asset Turnover = Revenue/Non current Assets	2,400/1,154 = 2.1	2,800/978 = 2.9
Interest Cover = PBIT/Finance Costs	(358+22)/ 22= 17.3 times	(580+30)/30 = 20.3 times

b)

It would be helpful to see some segmental analysis for LYNDAL, to establish how much of an impact the segments' results have on the entity as a whole. It would also help to assess the risk of potential write-down of inventories and non-current assets, should the strategy not be successful. Segmental analysis would also help in identifying whether the fall in margins is solely due to the packaging segment or whether any other areas are being affected.

Forecasts with the new strategy being implemented would be helpful to estimate the future profitability and cash flows to gain comfort that LYNDAL is setting realistic targets and can afford to service the finance.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA 3.2: ADVANCED AUDIT AND ASSURANCE

THURSDAY 15 SEPTEMBER 2022

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

INSTRUCTIONS TO CANDIDATES

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

2. This paper is divided into TWO (2) sections:
Section A: One (1) Compulsory scenario question.
Section B: Four (4) Optional Questions. Attempt any Three (3) questions.

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

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

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

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

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

8. Present legible and tidy work.

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

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

SECTION A

This question is compulsory and must be attempted.

QUESTION ONE – (COMPULSORY)

You are an Audit Manager in Lubuto Accountants a firm of chartered accountants. You are responsible for the financial statement audit of Munali Mining Plc for the year ended 31 December 2021. You are currently planning the financial statement audit.

Munali Mining Plc is a large mining company involved in mining, processing and sale of copper, gold, cobalt and vanadium.

The following ethical and professional issues were identified during planning meetings held with the Audit Committee, the Chief Executive Officer and the Finance Director:

1. During the year under review, the Engagement Partner's daughter provided management consultancy services to Munali Mining Plc.
2. The report from the Quality Control section for Lubuto Accountants indicates that last year's working paper review for the financial statement audit of Munali Mining Plc for the year ended 31 December 2020 was graded as unsatisfactory.
3. It appears that Munali Mining Plc's emissions are in excess of the limits permitted by statute.
4. The Audit Senior proposed the use of disclaimers to limit Lubuto Accountants' exposure to unknown litigation since Munali Mining Plc has various stakeholders.
5. Lubuto Accountants was appointed auditor for Munali Mining Plc in the year 2020 and the first audit was in respect of the financial statements for the year ended 31 December 2020. However, a customer due diligence (CDD) was not conducted.

The Engagement Partner has provided you with the following points to assist you with risk assessment:

During the year 2021, Munali Mining Plc purchased land for the construction of a smelter. The land was cleared but construction was stopped by the Zambia Environmental Agency (ZEMA). ZEMA discovered that an environmental impact assessment was not carried out before clearing the land.

On 6 June 2021, Munali Mining Plc acquired systems analysis program (SAP) after successful demonstrations which were conducted by the vendor. The vendor provided the required training to IT, finance and marketing personnel. Management is happy with the performance of SAP. The company upgraded its website and introduced on-line sales.

Munali Mining Plc uses standard costing to value inventory. Cost bookkeeping is therefore simplified and reporting for management control and decision making is relatively quicker. The Production Director, however, thinks this is much more complicated compared to the use of actual costs.

The COVID-19 pandemic has had an adverse impact on Munali Mining Plc's working capital. In February 2021, the company was forced to negotiate for an increase in the bank overdraft to enable it pay local suppliers. The interest rate on the overdraft is quite high. A convertible debenture was issued in order to pay the foreign suppliers. All financial instruments are held at fair value.

Munali Mining Plc is an appointed agent for withholding value added tax (WVAT). The company has been delaying to pay the WVAT. The Zambia Revenue Authority (ZRA) has already carried out a tax audit and the findings have not yet been communicated to the company.

The commodity prices on the London Metal Exchange and globally have increased, and as a result the mining industry has experienced the coming in of two (2) new competitors. The new competitors are able to extract the minerals at much lower costs since they use modern mining technologies. Munali Mining Plc has announced a major restructuring programme to ensure it continues operating profitably.

Required:

(a) Discuss the ethical and other professional matters in the scenario, clearly stating what action your firm should take. (10 marks)

(b) Identify and explain four (4) business risks in Munali Mining Plc. (8 marks)

(c) Discuss whether financial instruments always result in high audit risk. (8 marks)

(d) Using the information in the scenario:

   (i) Identify and explain four (4) audit risks. (6 marks)

   (ii) Recommend appropriate audit responses (safeguards) for each audit risk. (4 marks)

(e) Describe four (4) audit procedures relating to the convertible debenture. (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>

Your firm of Chartered Accountants is auditor of Mupundu Ltd. The following information relates to the audit of the financial statements of Mupundu Ltd for the year ended 30 September 2021.

You are the Audit Manager on the audit of the financial statements of Mupundu Ltd and you attended a pre-audit meeting with management and the Audit Committee of the Board of Directors of Mupundu Ltd. A number of issues were discussed at this meeting among which is the nature of communication between the audit team and the management. It was agreed that at the end of the audit, the audit report will be issued in accordance with relevant auditing standards and that soon after that a management letter shall be issued.

The agreed scope of the audit includes the need for the statutory auditors to evaluate the effectiveness of the internal controls of Mupundu Ltd. The previous year audit revealed a number of errors in the figures contained in the financial statements and these were attributed to poor and ineffective internal controls. There were instances where same supporting documents were used to support two (2) payments. A review of some orders made during the period under review, revealed orders that were not approved by the Purchasing Manager and when questioned, the Finance Manager informed the audit team that there are cases when the Purchasing Manager was out of the office and there are urgent orders to be made.

You are reviewing the working papers before they are submitted to the Engagement Partner for final review and the following matters are contained in the working papers:

Matter 1
The financial statements of Mupundu Ltd contain a summary of key ratios for the current and previous years.

The profitability ratios do not match with the evidence obtained in that while a growth of 5% in gross profit has been reported the audited financial statements show a growth of 2%.

Matter 2
The audit report for the audit of the financial statements for the year ended 30 September 2021 was signed on 15 November 2021. On 25 November 2021 the matter that was in court at the period end was settled and the Court of Appeal ruled in favor of the litigants and that the company was charged a total of K3 million in damages against a provision of K1.5 million in the financial statements.

Matter 3
A valuation of company properties was carried out by an external valuer. The figures in the financial statements contain the result of the revaluations and the amounts are considered material to the financial statements.
Required:

(a) Distinguish a management letter from an audit report. (4 marks)

(b) Identify three (3) matters that should be included in the management letter stating the information that should be included. (6 marks)

(c) Explain the risk of material misstatement with regards to subsequent events in the audit of the financial statements of Mupundu Ltd. (4 marks)

(d) Explain two (2) audit evidence that you expect to find in the working papers in the review of the audit work on each of the matters 1 to 3. (6 marks)

[Total: 20 Marks]

QUESTION THREE

You are an Audit Manager in Mumbwa Associates and you are in charge of the audit of the financial statements for Monze Plc for the year ended 31 May 2022. Monze Plc is one (1) of the world's leading companies in oil exploration, production and marketing. The company is the market leader in the Common Market for Eastern and Southern Africa (COMESA) region.

During the year under review, Monze Plc purchased a transferable interest in an oil exploration licence in the Western region of Zambia. Initial surveys of the region designation for exploration indicate that there are substantial oil deposits present, but further surveys will be required in order to establish the nature and extent of the deposits. Monze Plc also has to determine whether the extraction of the oil is commercially viable. The licence cost Monze Plc K4 million and this cost has been capitalised as an intangible asset.

You are currently assessing the impact of social and environmental matters on financial statements of Monze Plc. You have reviewed the Inspection Reports by the Zambia Environmental Management Agency (ZEMA). The company has been advised to urgently put in place remedial measures to address identified social and environmental concerns.

Mumbwa Associates has also been approached by Monze Plc to advise on a bid that Monze Plc is proposing to make for the purchase of Luanshya Ltd. You have ascertained the following from the briefing note received from the Director of Finance for Monze Plc:

1. Luanshya Ltd is an engineering company which provides various services to the oil industry.
2. The company is by family owned.
3. The services provided by Luanshya Ltd are highly rated by customers.
4. All employees have necessary qualifications, expertise and experience.
5. A business plan has been provided and the projections are very impressive.

Required:

(a) Explain, giving six (6) examples, the impact of social and environmental matters on financial statements of Monze Plc. (6 marks)

(b) Explain the risk of material misstatement regarding the capitalisation of the cost of the licence. (6 marks)

(c) Suggest six (6) matters into which Mumbwa Associates must make enquiries of when performing the due diligence on the proposed acquisition of Luanshya Ltd.

(8 marks)

[Total: 20 Marks]

QUESTION FOUR

You are an Audit Partner in Kariba & Co., a firm of chartered accountants. You are currently responsible for following:

1. Audit of the financial statements for Kabompo Plc.
2. Pre-issuance reviews of suggested audit opinions.

You are planning the audit of the financial statements for Kabompo Plc for the year ended 31 March 2022. Kabompo Plc operates in the pharmaceutical industry and incurs a significant amount of expenditure on research and development. The Audit Manager, who recently joined Kariba & Co., has requested you to specify quality control reviews, which will be required in respect of the audit of the financial statement for Kabompo Plc for the year ended 31 March 2022.

The following audit clients of your firm require pre-issuance reviews of the working papers. The financial statements for all the clients are for the year ended 31 December 2021.

Client one
Management has made the necessary allowance for receivables in the financial statements in respect of one (1) major customer. The customer's business was liquidated on 14 January 2022. 75% of the sales of client one was with this client.

An unmodified audit opinion has been recommended.

Client two
The client is a government owned enterprise. It has more liabilities than assets and is technically insolvent. However, the Ministry of Finance has stated that it will give financial support to this company and the letter of support is evidence of this.

A modified opinion in the form of an adverse opinion, with other matter paragraph is recommended.

Client three
Inventory is overstated by K200,000. This represents 3% of profit after tax and 0.5% of total assets. Management has refused to amend the financial statements and reduce the value of inventory.

An unmodified audit opinion has been recommended.

Required:

(a) Explain (6) quality control reviews which will be required in the audit of the financial statements for Kabompo Plc. (6 marks)

(b) Explain, giving two (2) examples the use of the Other matter paragraph in the audit report. (5 marks)

(c) Discuss the appropriateness or otherwise of the audit opinions recommended for the three (3) clients. (9 marks)

[Total: 20 Marks]

QUESTION FIVE

Lusiwasi Ltd operates in the Communication and Information Technology (CIT) industry. The company designs, manufactures and supplies high quality software. You are an Audit Manager in Quincy & Co. and you are currently performing risk assessment procedures in order to understand Lusiwasi Ltd and its environment in respect of the audit of the financial statements for the year ended 31 December 2021.

Quincy & Co. specialises in the audit of companies in the retail industry. This is the first time for Quincy & Co. to audit a company in the CIT industry.

You have gathered the following information:

1. The CIT industry is poorly regulated in the Republic of Zambia and most of the laws applicable to the industry are being repealed.
2. Seventy percent (70%) of the ordinary shares are owned by Edah, who is the Managing Director. She is a qualified software engineer with over ten (10) years' experience. She dominates all decision making and does not compromise on quality.
3. All technical staff are suitably qualified and experienced for their respective jobs.
4. The Accountant is partly qualified and is studying his first papers in the CA Zambia programme.
5. The previous auditors assessed the internal control systems of Lusiwasi Ltd as ineffective.

The draft financial statements for the year ended 31 December 2021, show that Lusiwasi Ltd capitalised development expenditure amounting to K5 million. Research expenditure of K2 million was expensed to profit or loss. The Engagement Partner wants you to recommend a suitable audit methodology.

Required:

(a) Describe the following audit methodologies:

(i) Transaction cycle approach. (3 marks)

(ii) Business risk approach. (4 marks)

(iii) Statement of financial position approach. (3 marks)

(b) Using the audit methodologies described in (a) above, suggest the most appropriate approach for Lusiwasi Ltd. (5 marks)

(c) Recommend five (5) audit procedures which should be performed on development costs appearing in the financial statements for Lusiwasi Ltd. (5 marks)

[Total: 20 Marks]

END OF PAPER

CA 3.2 ADVANCED AUDIT AND ASSURANCE SUGGESTED SOLUTIONS

SOLUTION ONE

(a) Ethical and other professional matters

Professional and ethical matters	Actions to take
(1) Engagement Partner's daughter provided management consultancy services to Munali Mining Plc – Depending on the type of management consultancy services, the Engagement Partner's objectivity could be threatened due to self-interest threat. It will be very difficult to exercise appropriate levels of scepticism on the work done by the daughter.	The matter should be investigated further, and depending on the findings, the Engagement Partner should be replaced.
(2) Working paper review – There was a serious breach of the requirements under ISA 220 *Quality Control for an Audit of Financial Statements.* The standard requires that that the engagement partner shall, through a review of the audit documentation and discussion with the engagement team, be satisfied that sufficient appropriate audit evidence has been obtained to support the conclusions reached and for the auditor's report to be issued. There is a risk that that wrong audit opinion could have been issued last year.	Last year's working papers should be reviewed in as much detail as possible by an independent partner and appropriate disciplinary action taken if necessary. The Audit Plan for this year should specifically provide for reviews as guided by ISA 220.
(3) It appears that Munali Mining Plc's emissions are in excess of the limits permitted by statute – This illegality could seriously affect the going concern ability of the company.	ISA 250 *Consideration of Law and Regulations in an Audit of Financial Statements* requires that in the event of a suspected non-compliance with law and regulations, the auditor should document the findings and discuss them with management. The audit team should attempt to obtain more information about the suspected non-compliance and act in accordance with the guidance given in ISA 250.
(4) Use of disclaimers – Other accountants believe that standard disclaimers should not be used. Their inclusion as a standard feature of the audit report could have the effect of devaluing that report. However, there are areas of professional work (for example when acting as an auditor under the Companies Act on behalf of shareholders and no liability limitation agreement is in place), where it is not possible for liability to be limited or excluded. There are other areas of professional work (for example when preparing reports on a business for the	Lubuto Accountants should not include the disclaimer to avoid devaluing audit report, unless it is considered absolutely necessary.

purpose of being submitted to a potential purchaser) where although such a limitation or exclusion may be included, its effectiveness will depend on the view which a court may subsequently form of its reasonableness.	
(5) A customer due diligence (CDD) was not conducted – This is a serious breach which could attract significant sanctions, especially from the Anti-Money Laundering Investigation Unit (AMLIU) of the Drug Enforcement Commission (DEC) and the Financial Intelligence Centre (FIC).	Lubuto Accountants should urgently conduct a CDD and seek advice from AMLIU and FIC.

(b) **Evaluation business risks**

- **ZEMA has discovered that an environmental impact assessment was not carried out before clearing the land –** Munali Mining Plc is in contravention of the regulations by clearing the land before issuance of clearance by ZEMA. The company risks being sued by ZEMA for contravening regulations. This could result in heavy penalties being charged and non-issuance of the clearance which will have consequences on the intended construction of a smelter. This could affect the operations of the company.
- **Munali Mining Plc acquired systems analysis program (SAP)** – Employees may not fully understand the operations of SAP. This could affect the ability of the company to attend to customer requirements on time. Disappointed customers could end up switching business to competitors.
- **Bank overdraft** – The high interest must be eroding the margins and this may negatively affect the ability of the company to honour its bank overdraft obligations. In fact, bank overdrafts are generally repayable on demand and this adds to the business risk.
- **Issue of convertible debenture** – There is a risk that Munali Mining Plc may be unable to repay the loan if the investors decide to redeem their debentures. This may affect the company's going concern status.
- **Delays in paying the Zambia Revenue Authority (ZRA)** – the delays in paying ZRA the withholding value added tax (WVAT) could result in increased interest to be paid worsening the already poor cash flows of the company. Further, there is a risk that ZRA could take action against the company for delayed and non-payments. These may have implications on the going concern aspects of the company.
- **Increased competition** – The coming in of two (2) new competitors in the industry could affect the business prospects of the company. There is a likelihood that demand may decline, especially that the new competitors are able to extract the minerals at much lower costs since they use modern mining technologies.
- **Impact of COVID 19 –** The impact of covid 19 could pose a significant business risk in that it negatively impacted most businesses do to the severe restrictions that were imposed. This could result in significant reductions in revenue which has implications of the ability of the company as a going concern.

(c) Discussion on whether financial instruments are a high risk area

Financial instruments range from the fairly simple (cash, trade receivables, trade payables etc.) to the far more complicated (derivatives, hedge accounting etc.). Auditors should ensure disclosures are made as required by the standards and also consider the potential for fraud, especially with more complex instruments and should assess the client's controls over creating, recording, and settling contracts – the better controls, the more likely the transactions are honest and fairly recorded. It may be necessary to consider use of suitable experts, especially with complex financial instruments.

Audit risk will probably be increased by the presence of complex financial instruments because:

- It may be difficult to understand the nature of financial instruments and what they are used for, and the risks to which the entity is exposed
- Market sentiment and liquidity can change quickly, placing pressure on management to manage their exposures effectively
- Evidence supporting valuation may be difficult to obtain
- There may be large individual payments, which may increase the risk of misappropriation of assets
- The amounts in the financial statements may not be proportionate to the level of risk involved
- There may be undue reliance on a few key employees, who may exert significant influence on the entity's financial instruments transactions, and whose compensation may be linked to the performance of these instruments. This may be a risk of fraudulent financial reporting.

The need for professional scepticism increases with the complexity of financial instruments. Hence, it may be correct to state that financial instruments are **generally** a high risk area, although they do not always result in high audit risk.

(d) Audit risks and audit responses

Audit risks	Explanations	Audit responses
(1) Foreign exchange	There is a risk of using inappropriate exchange rates on retranslation of the figures contained in the financial statements, resulting in the misstatements of the corresponding figures.	The Auditors must check whether all retranslations are in accordance with the guidance given in IAS 21 *The Effects of Changes in Foreign Exchange Rates.*
(2) Website sales	There is a possibility of cut-off problems especially if the controls are weak. The sales figure could be misstated.	The auditors will need to assess the related internal controls and apply professional scepticism throughout the audit in view of this risk.
(3) Financial instrument held at fair value (Convertible debenture)	Where financial instruments are held at fair value, they must be valued. This is one of the riskiest aspects of auditing them as it involves a lot of subjectivity.	The Auditors must check whether fair value is arrived at in accordance with IFRS 13 *Fair Value Measurement*, using the 'fair value hierarchy'. Also ensure the split into equity and liability components and the disclosures comply with IFRS 9 and IFRS 7 guidelines.
(4) Inventory valuation at standard cost	There is a risk that standard costing may not be an appropriate method to use. The inventories will be misstated.	Auditors must check whether the requirements for use of standard costs according to IAS 2 *Inventories* for the use standard costs have been satisfied. According to the standard, standard costs can be used where prices are fluctuating.
(5) Announcement of a major restructuring programme	There is a risk that the accounting treatment may be incorrect.	The auditors must obtain more details about the announcement of the major restructuring programme and check that the accounting treatment is in accordance with the guidelines given in IAS 37 *Provisions, Contingent Liabilities and Contingent Assets.*
(6) Delays in remitting VAT collected on behalf of ZRA	The company is an agent in the collection of VAT and by law the money should be remitted on the due date	Discuss with management and quantify the amounts involved and establish the penalties payable. Confirm

	according to the law. There is a risk that nay penalties due to delays in remitting VAT may be understated.	that the penalties have ben provided for.
New competitors in the industry.	The coming in of new competitors who operate at a lower cost could result in reduced demand for the products of Munali Mining Plc. This could result in the company failing to meet its costs and could impact on the ability of the company as a going concern.	Discuss with the management of Munali Mining and establish how the company hopes to compete favourably and also the impact on the company of the two competitors.

(e) Audit procedures relating to the convertible debenture

- Check the nominal interest rate and conversion terms to the debenture deed
- Agree amount of initial proceeds and interest payment to cash book and bank statement
- Obtain schedule calculating the fair value of the liability at the date of issue and confirm that an appropriate discount rate has been used (assuming revised treatment adopted)
- Confirm whether disclosures are adequate and in accordance with IFRS 9 and IFRS 7.

SOLUTION TWO

(a) Distinction between a management letter & an audit report:

Both the management letter and the audit report are issued by the external auditor. A **management letter** is written and issued by the auditor at the end of the audit. It is used to communicate any internal control weaknesses that the auditor found out during the audit. In the management letter the auditors will include the implications to the company of the weaknesses and recommendations to remedy the weaknesses.

The audit report is the outcome of the statutory audit in which the auditors expresses the opinion arrived at. It is addressed to the shareholder who are the ones that require confidence in the financial statements prepared by management.

(b) Matters that should be included in the management letter:

The following area the weaknesses that should be included in a management letter after the audit of the financial statements of Mukuyu Ltd:

1. Poor and ineffective internal controls.
2. Same supporting documents used to support two different payments.
3. The fact that some orders are not approved by the Purchasing Manager

The management letter will include the weakness observed, the impact of the weakness, the recommendation of the auditors and the response from management.

Using the information in the scenario and the use of the same documents for two payments, the following information will be included in the management letter:

Observation:
Instances of cases where the same supporting documents were used to support two payments (See appendix 1).

Implication:
This is a case of fraud which can result in loss of money for the company.

Recommendation:
Supporting documents to payments must be stamped with a 'PAID' stamp with the date of payment to avoid the same documents being used for another payment for the same transaction.

Response of management:
We agree with the recommendation and will implement immediately.

(c) Audit risk with regards to subsequent events:

The risk of material misstatement is the risk that a figure in the financial statements may be misstated before the auditor performs audit procedures.

Subsequent events should be accounted for in accordance with the provisions of IAS 10 *Events after the reporting period.*Not accounting for subsequent events in accordance with the accounting standard may result in a material misstatement of the financial statements. The risk of material misstatement with regards to subsequent events is that management may not correctly account for any subsequent events which may result in a material misstatement of the related figures in the financial statements of Mupundu Ltd. This could happen by, for example, by wrongly treating a non-adjusting event as an adjusting event and vice versa.

(d) Audit evidence expected in review of working papers:

Matter 1

This matter relates to Other information contained in the financial statements. ISA 720 *The auditor's responsibility in relation to other information in documents containing audited financial statements*gives guidance in this area of auditing.

In reviewing the audit working papers the following evidence is expected:

- o A section in the working papers showing that the auditors have performed work on the other information.
- o The computation showing the profitability ratios for the current year and the ratios shown in the summary of key ratios.
- o The response of management when matter brought to its attention.
- o Evidence of how the inconsistence was resolved.

Matter 2

The situation described in the question is an example of an adjusting subsequent event. ISA 560 *Subsequent events* gives guidance in this area. The determination of the liability on 25 November 2021 will require that the financial statements should be amended and an additional provision of K1.5 million should be made.

The following evidence is expected to be found in the working papers:

- o Evidence of the discussion between the auditors and management concerning what management intended to do with regards to this matter.
- o Management's response concerning the event on how it intends to deal with the matter.
- o Evidence of amendment to financial statement figure of provisions, amount before determination and amount of provision after determination by the court.
- o Action taken in event management declines to amend the provision in the financial statements.
- o Audit work carried out on the amendment to the figures in the financial statements.

Matter 3

The valuation of properties should be carried out in accordance with the provisions of IAS16 *Property, plant and equipment*.

- Assessment of the independence and objectivity of the external valuer.
- An evaluation of the basis of the revaluations and the assumptions used by the valuer.
- Work performed on the revaluations i.e. correct accounting for the revaluation surpluses and deficits.
- Evidence confirming that all properties in the class have been revalued and that the revaluation was not selective.

SOLUTION THREE

(a) Impact of social and environmental matters on financial statements of Monze Plc

- **Provisions** – for example, for fines/compensation payments.
- **Contingent liabilities** – for example, in relation to pending legal action.
- **Asset values** – issues may impact on impairment.
- **Capital/revenue expenditure** – costs of clean up or meeting legal standards.
- **Development costs** – new products, which meet regulatory requirements.
- **Going concern issues** – for example, non-renewal of licence to operate.

(b) Risk of material misstatement

The capitalisation of the licence cost of K4 million may result in an overstatement of profits and assets. The relevant standard is IAS 38 *Intangible Assets.* An intangible asset may be recognised if it meets the identifiability criteria in IAS 38. If it is probable that future economic benefits attributable to the asset will flow to the entity and if it's fair value can be measured reliably. For an intangible asset to be identifiable, the asset must be separate, or it must arise from contractual or other legal rights.

The licence appears to have met the criteria. The licence was acquired separately, and its value can be measured reliably at the purchase price of K4 million. This means the risk of material misstatement is effectively non-existent.

The licence will tested for impairment in future following IAS 36 *Impairment of Assets* depending on the results of any further surveys.

(c) Matters into which Mumbwa Associates must make enquiries

- **Assets/liabilities** - in order to value the company
- **Management's representations** – about the company, which may need to be substantiated by evidence
- **Structure** – including how the target is owned and constituted and what changes will be necessary
- **Acquisition planning** – looking at potential benefits/drawbacks of the acquisition (e.g. synergies with the acquirer's business, or potential economies of scale)
- **Financial health** – based on a detailed examination of past financial statements and an analysis of the existing asset base
- **Credibility of the owners** – directors and senior managers, including validation of the career histories of all the main players in the business
- **Future potential** – reflected in the strengths of its products or services and the probability of earnings growth over the medium to long term
- **Assessment of the risk** – to the acquiring business, in terms of its markets, strategy and likely future events

- **The business plan** – in terms of how realistic it is, how solid the assumptions used are and how well it conveys the potential

SOLUTION FOUR

(a) Matters to consider in the quality control reviews performed:

- The engagement team's evaluation of the firm's independence in relation to the specific engagement
- Significant risks identified during the engagement and the responses to those risks
- Judgements made, particularly with respect to materiality and significant risks
- Whether appropriate consultation has taken place on matters involving differences of opinion or other difficult or contentious matters, and the conclusions arising from those consultations
- The significance and disposition of corrected and uncorrected misstatements identified during the engagement
- The matters to be communicated to management and those charged with governance and, where applicable, other parties such as regulatory bodies
- Whether working papers selected for review reflect the work performed in relation to the significant judgements and support the conclusions reached
- The appropriateness of the report to be issued.

(b) Use of the Other matter paragraph in the audit report

ISA 706 (Revised) *Emphasis of Matter and Other Matter paragraphs* give detailed guidance. The Other Matter paragraph is a paragraph included in the auditor's report that refers to a matter other than those presented or disclosed in the financial statements that, in the auditor's judgement, is relevant to user's understanding of the audit, the auditor's responsibilities or the auditor's report.

Examples of its use include:

- When deemed necessary by the auditor (e.g. when the auditor is unable to withdraw from the engagement and yet is unable to obtain sufficient appropriate audit evidence, when the auditor has been requested to report on other matters or to provide more clarifications in line with the legal jurisdiction of the country).
- Where prior period financial statements were audited by a predecessor auditor.
- Where prior period financial statements were not audited.
- When reporting on prior period financial statements in connection with the current period's audit, if the auditor's opinion on such prior period financial statements differs from the opinion the auditor previously expressed.

(c) Appropriateness or otherwise of the audit opinions recommended by the Audit Supervisor

Client one

It is clear that there is uncertainty regarding the going concern aspect of the company. If management declines to disclose this in the financial statements and the auditor is of the view that the going concern assumption is inappropriate then the auditor must express an adverse opinion. If on the other hand the auditor concludes that the uncertainty to going concern is not fundamental then he may issue a qualified opinion.

Hence, the recommended unmodified audit opinion is inappropriate.

Client two

As long as the necessary disclosures are made in the financial statements, the letter of support (comfort letter) from the Ministry of Finance is considered sufficient appropriate audit evidence and the audit opinion should be unmodified.

The recommended modified opinion in the form of an adverse opinion, with an Other matter paragraph is inappropriate. The use of the Other matter paragraph is totally misplaced.

Client three

The misstatement of the inventory figure is not material to the financial statements and the opinion should be unmodified.

The recommended opinion is therefore appropriate. However, it will be necessary to aggregate this with other uncorrected misstatements and consider the overall impact on the financial statements.

SOLUTION FIVE

(a) Audit methodologies

(i) Transactions cycle approach:

Cycles testing is in some ways closely linked to systems testing, because it is based on the same systems. However, here we are looking at them in terms of substantive testing.

When auditors take a cycles approach, they test the transactions which have occurred, resulting in the entries in the statement of profit or loss and other comprehensive income (for example, sales transactions, inventory purchases, asset purchases, wages payments, other expenses).

They would select a sample of transactions and test whether each transaction was complete and processed correctly throughout the cycle. In other words, they substantiate the transactions which appear in the financial statements.

(ii) Business risk approach:

The business risk approach (also known as top-down approach) was developed because it is sometimes believed that the risk of the financial statements being misstated arises predominately from the business risks of the company.

The business risk audit approach tries to mirror the risk management steps that have taken by the directors. In this way, the auditor will seek to establish that the financial statement objectives have been met, through an investigation into whether all other business objectives have been met by the directors.

This approach to the audit has been called a 'top-down' approach, because it starts at the business and its objectives and works back down to the financial statements, rather than working up from the financial statements which has historically been the approach to audit.

The other key element of a business risk approach is that as it is focussed on the business more fully, rather than the financial statements, there is greater opportunity for the auditor to add value to the client's business and to assist him in managing the risks that the business faces.

(iii) Statement of financial position approach:

The statement of financial position (balance sheet) shows a snapshot of the financial position of the business at a point in time. It follows that if it is fairly stated and the previous snapshot was fairly stated, then it is reasonable to undertake lower level testing on the transactions which connect the two snapshots, for example, using analytical procedures.

Under this approach, therefore, the auditors seek to concentrate efforts on substantiating the closing position in the year, shown in the statement of financial position, having determined that the closing position from the previous year (also substantiated) has been correctly transferred to be the opening position in the current year.

However, when not undertaken in conjunction with a risk based approach or systems testing, the level of detailed testing can be high in a statement of financial position approach, rendering it costly.

(b) Suggest audit methodology for the audit of Lusiwasi Ltd and reasons:

The systems of Lusiwasi Ltd have been assessed as ineffective. In this case, there would be need to carry out extensive substantive procedures. The substantive approach taken in this situation could be a cycles approach.

Given also that this is the first audit, the cycles approach will give Quincy & Co. a significant insight into how the business operates and increase the knowledge of the business. This approach will reduce audit risk to an acceptably low level since Quincy & Co. will be able in a position to substantiate that transactions have been recorded properly, despite the poor systems.

(c) Recommend audit procedures:

- Inspect accounting records to confirm:
  - Project is clearly defined (separate cost centre or general ledger codes)
  - Related expenditure can be separately identified, and certified to invoices, timesheets.
- Confirm feasibility and viability by:
  - Examining market research reports, feasibility studies, budgets and forecasts
  - Consulting client's technical experts
- Review budgeted revenues and costs by examining results to date, production forecasts, advance orders and discussion with directors
- Review calculations of future cash flows to ensure resources exist to complete the project
- Review previously deferred expenditure to ensure IAS 38 criteria are still justified
- Confirm that amortisation:
  - Commences with production
  - Charged on a systematic basis

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATON

CA ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA 3.4: ADVANCED TAXATION

THURSDAY 15 SEPTEMBER 2022

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

INSTRUCTIONS TO CANDIDATES

1. You have fifteen (15) minutes reading and planning time. Use it to study the examination paper carefully so that you understand what to do in each question. DO NOT write in your answer booklet during this TIME.

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

Section A: ONE Compulsory Question.
Section B: FOUR (4) Optional Questions. Attempt any THREE (3) questions

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

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

5. **Cell phone**s are **NOT** allowed in the examination room.

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

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

8. Present legible and tidy work.

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

10. A Taxation table is provided from page 2 to page 6 of the question paper.

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

TAXATION TABLE

Income Tax

Standard personal income tax rates

Income band	Taxable amount	Rate
K1 to K54,000	first K54,000	0%
K54,001 to K57,600	next K3,600	25%
K57,601 to K82,800	next K25,200	30%
Over K82,800		37.5%

Income from farming for individuals

K1 to K54,000	first K54,000	0%
Over K54,000		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%

Income from farming for individuals

K1 to K54,000	first K54,000	0%
Over K54,000		10%

Company Income Tax rates

On income from manufacturing and other	30%
On income from farming	10%
On income of Banks and other Financial Institutions	30%
On income from mineral processing	30%
On income from mining operations	30%
On income from manufacture of products made out of copper cathodes	15%

Mineral Royalty

Mineral Royalty on Copper

Range of Norm Price	Mineral Royalty Rate
Less than US$4,500	5.5% of norm value
From US$4,500 to less than US$6,000	6.5% of norm value
From US$6,000 to less than US$7,500	7.5% of norm value
From US$7,500 to less than US$9,000	8.5% of norm value
From US$9,000 and above	10% of norm value

Mineral Royalty on other minerals

Type of mineral	Mineral Royalty Rate
Base Metals (Other than Copper, Cobalt and Vanadium)	5% of norm value
Cobalt and Vanadium	8% 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 K20,000)**

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 4%

Rental Income Tax

Annual Rental Income	
K800,000 or below	4%
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 cc but not exceeding 2500 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</u> (C0MPULSORY)

Background

The Mwinulunga Group of companies comprises the parent Mwinulunga Plc and its 100% owned subsidiary Limulunga Ltd. Both companies are resident in Zambia and are engaged in manufacturing. The companies prepare financial statements annually to 31 December and are both registered for Value Added Tax (VAT) purposes. The Mwinulunga group uses International Financial Reporting Standards as the basis for the preparation of financial statements, for financial reporting purposes.

Financial performance of the group

The following summarised statements of profit or loss for the year ended 31 December 2022 have been extracted for each company:

	Note	Mwinulunga	Limulunga
		K'000	K'000
Sales revenue	(1)	971,351	586,552
Cost of sales	(2)	(391,725)	(308,520)
Gross profit		579,626	278,032
Operating expenses	(3)	(145,510)	(110,832)
Exchange differences	(6)	(251)	-
Finance costs	(7)	(200,000)	(20,000)
Profit before tax		233,865	147,200

The following additional information is relevant

Note 1: Sales revenue

80% of Mwinulunga Plc's supplies are standard rated while the remainder are exempt supplies. All of the supplies made by Limulunga Ltd are standard rated. Included in Mwinulunga Plc's revenue are sales amounting to K4,500,000 made to Limulunga Ltd during the year ended 31 December 2022. Limululunga Ltd has included this figure within its cost of sales.

Note 2: Cost of sales

The figure for cost of sales comprise of the following:

	Mwinulunga	Limulunga
	K'000	K'000
Opening inventory	195,035	161,112
Purchases (Note 1)	235,035	185,112
Depreciation	15,000	9,000
Amortisation of intangible assets	5,000	3,000
Closing inventory	(58,345)	(49,704)
	391,725	308,520

The purchases for both companies are standard rated for VAT purposes.

Note 3: Operating expenses

These comprised the following:

	Mwinulunga K'000	Limulunga K'000
Employee's salaries	95,600	66,389
Defined benefit expense (Note 4)	31,400	-
Gratuity expense (Note 5)	-	600
Costs of setting up an unapproved employee share option scheme	260	-
Entertainment expenses for employees	121	-
Operating lease rentals of manufacturing equipment	-	225
Miscellaneous business overheads	18,129	43,618
	145,510	110,832

The entertainment expenses for employees are VAT inclusive.

Note 4: Defined benefit expense

The defined benefit expense charged to operating expenses in the statement of profit or loss for Mwinulunga Plc comprises the current service cost of K21,000,000, past service cost of K9,000,000 and net interest cost of K1,400,000. Pension benefits amounting to K19,500,000 were paid during the year to 31 December 2022.

Note 5: Gratuity

The gratuity expense shown within operating expenses in the statement of profit or loss of Limulunga Ltd shown above represents the annual charge for the current year in respect to gratuity paid to employees on three-year fixed term contracts which expired on 31 December 2022. The gratuity becomes an entitlement to the employees on the expiry of their contracts and accordingly, the total amount of gratuity paid on 31 December 2022 in respect of these contract was K1,800,000.

Note 6: Foreign exchange differences

The foreign exchange differences shown in the statement of profit or loss for Mwinulunga Plc above were accounted for in accordance with the relevant accounting standards and arose on the following items:

(1) The sale on 1 March 2022, of raw materials valued at US$60,000 on three months credit to a foreign customer. The foreign customer settled the whole amount on 1 June 2022.

(2) Re-translation into Zambian Kwacha of investment property held in a foreign country. The property is carried at fair value for financial reporting purposes. The fair value of the investment property at 31 December 2021 was US$150,000. The fair value of the property at 31 December 2022 remained unchanged at US$150,000.

(3) Re-translation into Zambian Kwacha on 31 December 2022, of a 5-year loan of US$400,000 obtained from a foreign financial institution not related to the group two years ago. Interest on the loan was paid during the year and is included within finance cost.

The Zambian Kwacha per US dollar exchange rates were as follows on the following dates:

Date	*Exchange rate* ZMW/ US$
31 December 2021	K17.80
1 March 2022	K18.10
1 June 2022	K18.50
31 December 2022	K18.90

Note 7: Finance cost

Finance cost represents interest paid on loans from financial institutions not related to any of the two companies. The interest rate applicable on the loans is equal to the arm's length borrowing rate.

Note 8: Implements plant and machinery

As at 1 January 2022 there were no assets qualifying for capital allowances. However, the following expenditure was incurred during the year ended 31 December 2022.

(1) In January 2022, Mwinulunga Plc constructed a new manufacturing plant at a cost of K29 million (VAT inclusive).

(2) During the year Limulunga Ltd acquired manufacturing equipment having a cost of K1,500,000 (VAT exclusive) under an operating lease agreement. The annual operating lease rentals are K225,000 (VAT exclusive) and are included within operating expenses on the statement of profit or loss shown above.

(3) Limulunga Ltd additionally acquired some pool cars at a cost of K2,000,000 (VAT exclusive) during the year.

Note 8: Value Added Tax

Unless specifically stated otherwise, all of the above figures are VAT exclusive.

Required:

(a) Determine the amount of the exchange difference arising on each of the items in note (6) above and advise the Directors of the income tax treatment in each case when determining the taxable income for the year. (6 marks)

(b) Advise the Directors of the company income tax treatment of groups and establish the company income tax liability for the group for the tax year 2022. (21 marks)

(c) Advise the Directors of the VAT treatment of groups and establish the VAT liability of the group for the tax year 2022. (13 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt any THREE (3) questions in this section.

QUESTION TWO

You are employed in a firm of Chartered Accountants. You are dealing with the tax affairs of LCM Plc a client of the firm.

LCM Plc is a Zambian resident company engaged in manufacturing. The company is a long-standing client of your firm for a wide range of services. The company has received a notice from the Zambia Revenue Authority of a tax audit which will soon be conducted on the affairs of the company. The Directors are not sure whether this is the same as tax investigation. The company has, therefore, engaged your firm to help them prepare for the audit.

During the preliminary meeting with Directors of LCM Plc, you discovered the following:

(1) The company's Chief Executive Officer is a close friend to your uncle. He has indicated to you that if you perform the assignment to their satisfaction, you will be given a job at LCM Plc as the company's Tax Accountant.

(2) The company has an active tax appeal case in the court of law. This is the case in which the company appealed against the Commissioner General's decision to penalize the company for non-disclosure of income for the tax year 2020. The Finance Director has asked you to represent them when the case comes up for hearing.

(3) The company imported some raw materials from its parent company, resident in a foreign country, during the year ended 31 December 2022. The company was charged K18,300,000 for the raw materials. These raw materials had an open market value of K11,200,000. The company included K18,300,000 in the cost of sales. No transfer pricing adjustments were made when computing the taxable business profit for the year. The Finance Director has indicated to you that there is no need to make adjustments to the tax return already submitted because ZRA tax auditors will not discover this error. The Finance Director has asked you not to disclose this to anyone because doing so will breach the principle of confidentiality and offered you a token of appreciation, for non-disclosure, amounting to K100,000.

(4) The company is in the process of introducing an employee share option scheme but the Directors are not aware of the conditions to be met for it to be approved for taxation purposes. The Sirectors would want to know the benefits of administering an approved share option scheme.

Required:

(a) Advise the Directors of LCM Plc of the difference between tax audit and tax investigation. Your answer should include the circumstances under each type of assignment may be conducted. (4 marks)

(b) Identify and explain the main threats to compliance with the fundamental ethical principles when carrying out your duties at LCM Plc. (6 marks)

(c) Explain the ethical implications of the Finance Director's proposal of non-disclosure of transfer pricing adjustment and the token of appreciation you have been offered. (4 marks)

(d) In relation to the employee share option scheme:

(i) Advise the Directors of LMC Plc of any three (3) conditions required for the employee share option scheme to be approved by the Commissioner General for taxation purposes. (3 marks)

(ii) Advise the Directors of the taxation benefits to the company of administering an approved employee share option scheme. (3 marks)

[Total: 20 Marks]

QUESTION THREE

You are employed in a firm of Chartered Accountants. Your supervisor has just assigned you to deal with the tax affairs of Kulima Ltd, a farming company. One of the Directors of Kulima Ltd has been invited by the Zambia National Farmers Union to make a presentation on the incentives available in the agricultural sector to foreign investors who will be visiting the Republic of Zambia. He has requested for your assistance.

You have further been provided with the following summarised statement of profit or loss for Kulima Ltd for the year ending 31 December 2022.

KULIMA LTD
STATEMENT OF PROFIT OR LOSS FOR THE YEAR ENDED 31 DECEMBER 2022

	K'000
Revenue	107,155
Cost of sales	(48,000)
Gross profit	59,155
Operating expenses	(19,000)
Finance cost	(17,000)
Other income	1,000
Profit before tax	24,155
Income tax expense	(4,420)
Profit for the period	19,735

The following additional informational is available:

(1) The figure for cost of sales in the statement of profit or loss includes depreciation of farming implements of K5 million, purchases of organic fertilisers amounting to K2 million and stumping amounting to K1 million.

(2) Operating expenses consists of the following:

	K'000
Farm workers' salaries and wages	6,000
Directors' emoluments	7,000
Diesel	3,200

Petrol	1,000
Subscription to Zambia National Farmers Union	100
Allowable expenses	1,700
Total	19,000

(3) Other income relates to royalties received from a Zambian company during the tax year 2022. The amount shown is the gross amount.

(4) The income tax expense shown in the statement of profit or loss relates to the provisional income tax paid for the tax year 2022.

(5) During the tax year 2022, Kulima Ltd engaged a foreign company to install computerised sprayers. The foreign company has not appointed a tax agent in the Republic of Zambia. Installation works took two (2) weeks and immediately after completing the works, the foreign company issued an invoice in sum of US$70,000 to Kulima Ltd. This amount is exclusive of VAT. The exchange rate on the date of issue of the invoice was K16.50 per US$1.

(6) At 1 January 2022, the income tax values of all implements plant and machinery qualifying for capital allowances were zero.

Required:

(a) Explain three (3) income tax incentives and three (3) value added tax (VAT) incentives available to enterprises such as Kulima Ltd engaged in agriculture. (6 marks)

(b) Compute the taxable business profits for the tax year 2022 and calculate the amount of company income tax payable for the tax year 2022. (11 marks)

(c) Advise the Directors of Kulima Ltd, using appropriate supporting calculations, of the value added tax (VAT) implications of the installation works carried out by the foreign company. (3 marks)

[Total:20Marks]

QUESTION FOUR

For the purpose of this question assume that today's date is 31 December 2022

You are employed in a firm of Chartered Accountants. You are dealing with the tax affairs of SGL Limited. A Zambian resident company engaged in manufacturing and a subsidiary of a foreign multinational company. The company is registered for Value Added Tax (VAT), Withholding Tax (WHT) and Pay as You Earn (PAYE). The company had been handling their own tax affairs until 31 December 2021 when they engaged your firm to be their tax consultant. Whilst performing your work you discovered a number of errors in their tax returns for the year ended 31December 2021. The Directors would like to know how they can regularize the errors with the ZRA.

You have further obtained the following information relating to their transactions that took place during the charge year 2022:

(1) SGL Limited paid property rates of K5,000, installed a DTSV decoder, paid one year subscription for K12,000, and engaged a security firm at the new Director's residence at a cost of K6,500 on 1 June 2022.

(2) The company paid interest of K50,000 on corporate bonds to its bond creditors on 31 March 2022. The bonds were issued during the year and all the funds were used to construct a new factory at a cost of K1,200,000 inclusive of land costing K100,000. The cost of the factory building comprised the cost of staff canteen of K322,800, engineering drawing office of K232,000, a showroom of K87,000 and a factory unit of K458,200. All these figures were VAT inclusive.

(3) The company bought a processing machine for its factory on 1February 2022 at a cost of K160,000 (VAT exclusive). The machine was acquired through a hire purchase agreement. This required an initial deposit of 40% of the cost followed by four monthly installments of K40,000 each.

(4) SGL Limited received interest of K25,000 gross from its investment in an overseas company on 15November 2022. Withholding tax of 20% was deducted from the interest income and paid to the taxation authorities in the overseas country. There is no double taxation treaty between Zambia and the overseas country. Double taxation is given in Zambia by way of unilateral expense relief.

Required:

(a) Advise SGL Limited of the options available to them to regularize the errors identified in their tax returns for the previous year. (3 marks)

(b) Advise SGL Limited using appropriate supporting computations of the taxation implications of each of the above transactions (1) to (4) for the year ended 31December 2022. (17 marks)

[Total: 20 Marks]

QUESTION FIVE

Mansa Minerals Corporation (MMC) is Zambian resident company engaged in mining. The company extracts a variety of minerals. The following is the statement of profit or loss of the company for the year ended 31 December 2022:

STATEMENT OF PROFIT OR LOSS FOR THE YEAR ENDED 31 DECEMBER 2022

		K
Revenue	Note 1	62,167,000
Cost of sales	Note 2	(33,210,000)
Gross profit		28,957,000
Operating expenses	Note 3	(14,264,000)
Other income	Note 4	1,300,000
Profit before interest & tax		15,993,000
Finance cost (interest expense)	Note 5	(8,103,000)
Profit before tax		7,890,000
Income tax expense	Note 6	(3,156,000)
Profit for the year		4,734,000

The following additional information is relevant:

Note 1: Revenue

The amount in the statement of profit or loss in the sales value of all the minerals exported. The figure for revenue is made up of the following:

	K
Revenue from sale of copper (norm value)	48,226,000
Revenue from sale of precious metals (norm value)	8,221,000
Revenue from sale of industrial minerals (gross value)	5,720,000
Total revenue	62,167,000

The price of copper during the year ended 31 December 2022 was in the range of US$7,500 to US$8,600 per metric tone. Mineral royalty tax was correctly calculated and paid on the appropriate due dates. The mineral royalty tax is included in the statement of profit or loss for the year ended 31 December 2022 within cost of sales.

Note 2: Cost of sales

In addition to mineral royalty tax, the figure for cost of sales include depreciation expense of K1,400,000, amortization of goodwill of K870,000, expenditure on construction of a community school in a mine township of K2,100,000 and construction of a clinic in a mine township of K3,000,000. The balance consists of revenue expenses which are allowable for tax purposes.

Note 3: Operating expenses

These include entertaining employees K600,000, entertaining suppliers K700,000, legal fees in connection with purchase of land K2,200,000, fines for breach of safety regulations K1,100,000 and accountancy & audit fees K630,000. The balance consists of revenue expenses which are all allowable for tax purposes.

Note 4: Other income

Other income includes dividends from Zambian companies K300,000 (gross) and interest from deposit-based investments in Zambian companies K1,000,000 (gross). Withholding tax had been deducted at source.

Note 5: Finance costs

These are made up of interest on loans. The loans were obtained from banks and other financial institutions not related to MMC.

Note 6: Income tax

This represents the amount of provisional income tax paid during the year ended 31 December 2022.

Note 7: Implements, plant and Machinery

At 1 January 2022 MMC had the following assets on which capital allowances could be claimed:

Asset	Original cost
	K
Mining plant	3,000,000
Smelter equipment	2,600,000

The above assets were acquired from foreign suppliers and paid for in US$ in July 2021.

During the year ended 31 December 2022, the company acquired the following assets from Zambian suppliers and paid for in Zambian Kwacha (ZMW):

	Cost (K)
Delivery trucks	3,400,000
Pool cars	2,100,000

Note 8: Exchange rates

The average exchange rates of Zambian Kwacha (ZMW) to US$1 are as follows:

Year ended 31 December	ZMW to US$1
2021	18.25
2022	17.10

Note 9: Indexation

The following indexation formula may be used where applicable:

$$(1 + [\frac{R2-R1}{R1}])$$

Required:

(a) Calculate the amount of mineral royalty tax paid during the year ended 31 December 2022. (3 marks)

(b) Compute the amount of taxable mining profits for the tax year 2022. (13 marks)

(c) Compute the amount of income tax payable for the tax year 2022. (4 marks)

[Total: 20 Marks]

END OF PAPER

CA 3.4 SUGGESTED SOLUTIONS

SOLUTION ONE

(a) Tax treatment of exchange differences

Foreign exchange gains are only taxable to the extent that they are revenue rather than capital in nature, in the charge year in which such gains are realised. Likewise, foreign exchange losses are only deductible to the extent that they are revenue in nature in the charge year in which such losses are realised

(1) Sale of raw materials

The sale would have initially have been recognised in Zambian Kwacha in the financial statements of Mwinulunga plc by applying the exchange rate ruling on the date of transaction at the value of K1,086,000 (US$60,000 x K18.10).

On settlement at 1 June 2022, the transaction would have been retranslated into Zambian Kwacha using the rate ruling on that date to K1,110,000 (US$60,000 x K18.50).

This would have resulted in a foreign exchange gain of K24,000 recognised in the SPL. As this gain is realised and is of a revenue nature, it will be assessed as taxable income when computing the taxable profit of Mwinulunga plc. Since it has already been included in the statement of profit or loss for Mwinulunga plc, no adjustment will be required.

(2) Investment Property

This is a non-monetary item carried at fair value. Therefore, it would have been translated into Zambian Kwacha and recognised at a value of K2,670,000 (US$150,000 x K17.80) on 31 December 2021.
At 31 December 2022 the property would have been retranslated to K2,835,000 (US$150,000 x K18.90). This will give rise to a foreign exchange gain of K165,000.

As this gain is unrealised and it is capital in nature, it is not taxable income and will be deducted when computing the taxable business profits of Mwinulunga plc.

(3) 5-year loan

This is a monetary item and as such, would have been translated into Zambian Kwacha and recognised at a value of K7,120,000 (US$400,000 x K17.80) on 31 December 2021.

At 31 December 2022 the loan is retranslated to K7,560,000 (US$400,000 x K18.90). This will give rise to a foreign exchange loss of K440,000.
As this loss is unrealised, it is not allowable and will be disallowed when computing the taxable business profits of Mwinulunga plc.

(b) Company income tax treatment groups

Companies forming a group are taxable as separate entities. This means that the holding company cannot complete a single tax return for the entire group.

Each group member must complete its own tax return covering the relevant tax year. However, group members should normally prepare their accounts to a common accounting date.

Therefore, Mwinulunga plc and Limulunga plc will each be taxable separately. This means that the company income tax liability of each company will be established separately.

The taxable business profit of each company will first have to be established in the normal way and then using the tax adjusted profit for each company, the company income tax liability of each company liability for each company will then be determined.

The taxable profits for each company will be determined as shown below:

MWINULUNGA PLC AND LIMULUNGA LTD
COMPUTATION OF INCOME TAX PAYABLE FOR THE TAX YEAR 2022

	Mwinulunga	Limulunga	
	K'000	K'000	
Profit before tax	233,865	147,200	
Add:			
Depreciation	15,000	9,000	
Amortisation	5,000	3,000	
Foreign exchange loss on foreign loan	440	-	
Defined benefit expense	31,400	-	
Gratuity expense	-	600	
Cost of setting up share option scheme	260	-	
	285,965	159,800	
Less:			
Foreign exchange gain on investment property	(165)		
Defined benefits paid	(19,500)		
Gratuity paid		(1,800)	
Capital allowances			
(K25 m x 50%)/ K2,000,000 x116%x 20%	(12,500)	(464)	
Taxable profits before interest adjustment	253,800	157,536	
Disallowed finance cost	57,860	-	(W)
Final taxable profits	311,660	157,536	
Company income tax			
(K311,660 x 30%) (K157,536 x 30%)	93,498	47,261	

WORKINGS

COMPUTATION OF DISALLOWED INTEREST

Taxable income	253,800	157,536
Add		
Finance cost	200,000	20,000
Depreciation	15,000	9000
Amortisation	5,000	3000
Tax EBITDA	473,800	189,536
Finance cost	200,000	20,000
Allowable interest		
(K473,800 x 30%) (30% x K189,536)	142,140	56,861
Disallowed finance cost	57,860	Nil

The finance cost of Limulunga of K20,000,000 is below 30% of that company's Tax EBITDA and therefore the whole interest expense is allowable.

(c) Companies in a group are required to individually and separately account for VAT and cannot register for VAT as a single entity. Each company in the group must individually register for VAT, if that company makes taxable supplies and meets the relevant VAT registration requirements. Therefore, Mwinulunga and Limulunga will each be required to account for VAT individually and separately.

The implications of this are that Mwinulunga and Limulunga will each be required to file its own VAT return and account for any output VAT on supplies made by the company and claim any input VAT on its expenditure.

VAT will be chargeable on any taxable supplies of goods and services made by the two companies to each other.

Each individual company will be held liable for any VAT due from that company and failure to meet any other obligation relating to VAT.

MWINULUNGA'S VAT POSITION

	K'000	K'000
Output VAT		
Standard rated Sales		
(971351 x80% x16%)		124,333
Input VAT		
Purchases		
(K235,035 x 16%)	37,606	
Manufacturing plant		
(K29m x 4/29%)	4,000	
Entertaining employees	-	
(Irrecoverable)		

Overheads		
(k18,129 x 16 x 80%)	2,321	
		(43,927)
VAT payable		80,406

LIMULUNGA'S VAT POSITION

	K'000	K'000
Output VAT		
Standard rated Sales		
(K586,552 x16%)		93,848
Input VAT		
Purchases		
(K185,112 x 16%)	29,618	
Lease rentals		
(K225 x 16%)	36	
Pool cars (irrecoverable)	-	
Overheads		
(K43,618 x 16%)	6,979	
		(36,633)
VAT payable		57,215
OVERAL VAT LIABILITY OF GROUP		
(K80,406 + K57,215)		137,621

SOLUTION TWO

(a) A tax audit is an examination of a tax return, a declaration of tax liability or a repayment claim, a statement of liability to stamp duty, or the compliance of a business with tax and duty legislation.

The main purpose of the tax audit is to establish the correct level of tax liability and to check the compliance levels of the tax payer.

Tax investigation on the other hand, is an investigation conducted due to some suspected tax evasion or reported tax fraud in connection with the tax payer.

A tax investigation is conducted where ZRA suspects or has received reports that the tax payer has been involved in a tax fraud or if the tax payer consistently reports losses.
(1 mark per valid point up to 4 marks)

(b) The following are the threats to compliance with the fundamental ethical principles:

(1) Familiarity threat

This is the threat that may occur where a client has a close or long relationship with the member. The threat is that the member may become too sympathetic to their interests.
In this case the Chief Executive Officer of LCM Plc is a close friend to the uncle of the member. Because of this relationship the member may become too sympathetic when performing the duties at LCM Plc and hence affect his objectivity.
(1 mark per valid point up to 2 marks)

(2) Advocacy threat

This threat occurs if the member is asked to promote or represent their client either before the tribunal or courts of law.
In this case the member has been asked to represent LCP Plc. in a tax appeal case before the court. The member is likely to be biased in favour of the client and this may lead to his objectivity to be compromised.

(3) Self-interest threat

This threat occurs where a member's financial or other interest may inappropriately influence their professional judgement.
In this case, the member has been promised a job on condition that he performs according to the satisfaction of the client. This is likely to affect his professional judgements.
1 mark per valid point up to 2 marks)

(c) Ethical implications of the finance director's proposal.
The principle of confidentiality requires the member to respect the confidentiality of the information acquired as a result of professional and business relationships, and should not disclose any such information to third parties without proper and specific authority.

The member may only disclose such information if there is proper authority or if he has a legal or professional right or duty to disclose such information.

The principle of integrity imposes an obligation on the member to be truthful and straightforwardness and should not be associated with any information that is not true, deceptive or furnished recklessly.

In this case the principle of confidentiality does not apply because the member has also a duty to protect public interest.
The finance directors' proposal is unethical and the member should not accept the token of appreciation proposed by the director. The member should immediately inform his supervisor and relevant authorities.

(d) Share option schemes

(i) The following are the conditions for the employees share option scheme to be approved for tax purposes:

(1) The scheme must be established in Zambia and the employer must be carrying on business wholly or partly in Zambia.
(2) An employee participating in the scheme should not buy more than one-fifth (20%) of the shares to be issued under the scheme.
(3) The scheme should provide for the participation of all eligible employees, including directors.
(4) Only ordinary shares of the company may participate in the scheme.
(5) The employees must be citizens or permanent residents of Zambia regardless of where they perform their duties from.
(6) The employees must be restricted to a set period of time to use an option to buy the shares.
(7) The employees must be restricted to a set period of time to use an option to buy the shares.

(ii) The taxation benefits of administering an approved share option scheme are as follows:

(1) The cost incurred by the employer to administer and set up the scheme is an allowable deduction when computing the taxable business profit.
(2) The income that accrues to the company as a result of administering an approved share option scheme is exempt from tax.
(3) The transfer of shares under an approved share option scheme is exempt from property transfer tax.

SOLUTION THREE

(a) Tax incentives

Income tax incentives

(1) The company income tax rate on farming profit is 10% for companies engaged in farming as opposed to the 30% which apply to other companies.
(2) A farm works allowance at the rate of 100% is available on expenditure qualifying as farm works.
(3) A farm improvement allowance at the rate of 100% is available on expenditure qualifying as farm improvements.
(4) A development allowance at the rate of 10% is available in the year that a business develops a qualifying plantation.
(5) Accelerated wear and tear allowance at the rate of 100% is available on implements used directly in farming.

Value added tax (VAT) incentives

(1) Zero rating agricultural products and supplies when exported
(2) Guaranteed input VAT claim for four (4) years prior to commencement of production for taxable agricultural businesses.
(3) VAT deferment on importation of some agricultural equipment and machinery.

(b) Kulima Ltd

Computation of the taxable business profits for the tax year 2022

K'000 Marks

Profit before tax		24,155
Add:		
Depreciation		5,000
29,155		
Capital allowances on computerised sprayer		
(K$70,000 x K16.50) x 100%	(1,155)	
Taxable income before interest adjustment		28,000
Less Royalties		(1,000)
		27,000
Add: Disallowed interest (W)	2,000	
Final Taxable farming profit		29,000
Add:		
Royalties		1,000 Taxable income
30,000		

Company income tax		
Farming income: (K29,000 X 10%)		2,900
Non-farming income (K1,000 X 30%)		300 Income tax
liability	3,200	
Less tax already paid		
Provisional tax		(4,420) WHT on
royalties (1,000 X 15%)	(150) Company income tax	
payable/(repayable)	(1,370)	

Working	K
Taxable profit	27,000
Royalties	1,000
Finance cost	17,000
Depreciation	5,000
Tax EBITDA	50,000
Finance cost	17,000
Allowable interest	
(30% x 50,000)	15,000
Disallowed interest	2,000

(c) Installation of computerised sprayers

Reverse VAT will apply to this transaction because the installation service provided by the non-resident company qualifies to be classified as an imported service and the non-resident company has not appointed an agent to act on its behalf for VAT purposes.

Kulima Ltd will have to charge itself reverse VAT of K184,800 (US$70,000 X K16.50 X 16%). This will be included as part of Kulima Ltd's output VAT.

The reverse VAT is not recoverable as input VAT. Therefore, Kulima will not be able to claim the reverse VAT of K184,000.

QUESTION FOUR

(a) When a tax payer has identified an error in their returns there are a number of options available to them to regularize them. The options available to SGL to regularize the errors include:

(1) Self -correct without incurring a penalty within six years following the date when the return was due for submission.
(2) SGL must apply in writing to the commissioner general setting out the adjustment to be made, attaching a corrected computation of the tax liability and enclosing payment of tax, plus statutory interest.
(3) SGL Limited may declare an innocent error. Where an auditor is satisfied that the error e,g underpayment arose through innocent error, no penalty will arise.

(b) Taxation implications

(1) Maintenance of director's private residence.

The expenses should be added up and the total added to the emoluments of the director for the month of November 2021 and taxed under PAYE.

The grossed up expenses paid by SGL Limited on behalf of the director will be allowed as an expense for income tax purposes.

(2) The interest on the loan of K50,000, will be allowable for as long as it will be less than 30% of the EBITDA.

The qualifying cost for industrial buildings will be as follows:

	K
Factory building	458,200
Staff Canteen	322,800
Engineering office	232,000
Showroom	87,000
Qualifying cost	1,100,000

10% x K1,100,000=110,000
The cost of the showroom is less than 10% of the total construction cost of the building.
As such the showroom will qualify as an industrial building

VALUE ADDED TAX IMPLICATIONS

Value added tax of K1,100,000 x 4/29 = K151,724 will be recoverable on the construction cost.

CAPITAL ALLOWANCES FOR THE TAX YEAR 2021

CAPITAL ALLOWANCES	K
Wear and tear allowance	
K948,276 X 5%	47,414
Initial allowance	
K948,276 X 10%	94,828
Investment allowance	
K948,276 X 10%	94,828
Total	237,070

The capital allowances can alternatively be computed as follows:

	Value K
Factory building	
Wear and tear allowance	
K458,200 x 25/29 x 5%	19,750
Initial allowance	
K458,200 x 25/29 x 10%	39,500
Investment allowance	
K458,200 25/29 x 10%	39,500
Staff canteen	
Wear and tear allowance	
K322,800 25/29 x 5%	13,914
Initial allowance	
K322,800 x 25/29 x 10%	27,828
Investment allowance	
K322,800 x 25/29 x 10%	27,828
Engineering office	
Wear and tear allowance	
K232,000 x 25/29 x 5%	10,000
Initial allowance	
K322,800 x 25/29 x 10%	20,000
Investment allowance	
K322,800 x 25/29 x 10%	20,000
Showroom	
Wear and tear allowance	
K87,000 x 25/29 x 5%	3,750
Initial allowance	
K87,000 x 25/29 x 10%	7,500
Investment allowance	
K87,000 x 25/29 x 10%	7,500
	237,070
Total allowances	

SGL will therefore be able to claim capital allowances of K237,070 as an allowable deduction from its business profits.

(3) The taxation implications of SGL Limited acquiring the machine under a Hire purchase agreement are:

The Hire Purchase interest element will be tax deductible in the computation of taxable business profits. This will amount to 40% X K160,000 = k64,000+ K40,000 X 4 = k224,000 – K160,000 =K64,000.
SGL will be able to claim input VAT on machine; K160,000 X 16% = K25,600

The capital allowance on the machine of K160,000X 50% = K80,000, will be deductible against the taxable business profits of SGL Limited.

(4) Under unilateral expense relief, the interest income will be charged to Zambian income tax net of any withholding tax paid in the foreign country.

The amount of interest income chargeable to Zambian tax is therefore K25,000 x 80/100 = K20,000.
The Zambian tax chargeable on the interest income will be 30% x K20,000 = K6,000.

SOLUTION FIVE

(a) Mineral royalty tax paid during the year ended 31 December 2022

	K
Sale of copper: K48,226,000 x 8.5%	4,099,210
Sale of precious metals: K8,221,000 x 6%	493,260
Sale of industrial minerals: K5,720,000 x 5%	286,000
Total mineral royalty tax paid	4,878,470

(b) Taxable mining profit for the year ended 31 December 2022

	K	K	
Profit before tax		7,890,000	
Add:			
Depreciation	1,400,000		
Amortization	870,000		
Construction of community school	2,100,000		
Construction of clinic	3,000,000		
Entertaining suppliers	700,000		
Legal fees- purchase of land	2,200,000		
Fines for breach of safety regulations	1,100,000		
		11,370,000	
		19,260,000	
Less:			
Dividends	300,000		
Interest	1,000,000		
Capital allowances (W1)	3,339,425		(W)
		(4,639,425)	
Adjusted business profit		14,620,575	
Add:			
Disallowed interest (W2)		304,927	(W)
Taxable business profit		14,925,502	

Workings

(1) Capital allowances

	K
Capital allowances of foreign assets:	
Mining plant	
(K3,000,000 x (1 + [K17.10 – K18.25]/K18.25) x 20%	562,192
Smelter equipment	
(K2,600,000 x (1 + [K17.10 – K18.25]/K18.25) x 20%	487,233
Capital allowances on Zambian assets:	
Delivery trucks	
K3,400,000 x 25%	850,000
Pool cars	
(K2,100,000 x 20%)	420,000

Community school	
(K2,100,000 x 20%)	420,000
Clinic	
(K3,000,000 x 20%)	600,000
Total capital allowances	3,339,425

(2) Disallowed interest expense

	K
Adjusted business profit	14,620,575
Add:	
Interest income	1,000,000
Depreciation	1,400,000
Amortization	870,000
Interest expense	8,103,000
Tax EBITDA	25,993,575
Interest expense	8,103,000
Less:	
Allowed interest: K25,993,575 x 30%	(7,798,073)
Disallowed interest	304,927

(c) Income tax payable for the tax year 2022

	K
Taxable mining profit	14,925,502
Add:	
Interest income	1,000,000
Total taxable income	15,925,502
Company income tax:	
Mining income: K14,925,502 x 30%	4,477,651
Non-mining income:	
Interest: K1,000,000 x 30%	300,000
Income tax liability	4,777,651
Less:	
Provisional income tax	(3,156,000)
WHT- Interest (K1,000,000 x 15%)	(150,000)
Income tax payable	1,471,651

END OF SUGGESTED SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA 3.5: ADVANCED MANAGEMENT ACCOUNTING

TUESDAY 13 SEPTEMBER 2022

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)

Tasinta Plc has decentralized its operations into autonomous product divisions. All divisional Managers are responsible for all aspects of the operations of their divisions including revenue, expenditure, the financing and acquisition of assets, and general cash management. Head office, nevertheless reserves the right to make such charges on a division as it deems necessary.

The performance of divisions and of divisional Managers is measured on the basis of their ROI before taxation.

Division P was set up in 2018 and is managed by Division P Manager. It is required to produce a rate of return of 18% per annum. Division Q has been in existence for 15 years and is managed by Division Q Manager. Because it sells a much older product and is in a less risky line of business, the required rate of return is 15% only. The company's average cost of capital on the same basis is 17%.

Division P Manager and Division Q Manager were appointed on 1 January 2019 on four (4) year service contracts. As these contracts will shortly be due for renewal, the performance of these two (2) Managers over their first three (3) years of employment is to be evaluated in order to determine the need for revision of the remuneration clauses in their contracts.

The financial results for the two divisions for the years 2019 - 2021 are given below.

	Division P			Division Q		
	2019	2020	2021	2019	2020	2021
	K'000	K'000	K'000	K'000	K'000	K'000
Estimated industry sales	20,000	30,000	34,000	62,000	68,000	84,000
Division sales	2,200	3,400	6,700	6,600	7,000	7,200
Direct materials	220	320	640	740	960	1,020
Direct labour	330	480	860	1,460	1,440	1,580
Plant, equipment depreciation	100	136	194	12	12	14
Plant leases	44	82	108	-	-	26
Factory rent	-	-	-	40	40	40
Maintenance and repairs	70	76	104	230	260	284
Energy costs	100	158	224	140	160	162
Production overheads	200	284	410	754	738	744
Research and development	126	134	178	30	20	24
Advertising, sales promotion	156	162	294	386	422	430
Other committed costs	356	462	698	1,398	1,428	1,240
Other managed costs	208	226	630	660	620	596
Head office allocated costs	220	680	1,680	660	700	720
Total costs	**2,130**	**3,200**	**6,020**	**6,510**	**6,800**	**6,880**
Net profit	**70**	**200**	**680**	**90**	**200**	**320**

Assets Employed						
– Non-Current Assets(Net Book Value)	1,000	1,400	1,800	100	90	94
– Current Assets	1,000	1,000	1,600	900	930	866
Total Assets	**2,000**	**2,400**	**3,400**	**1,000**	**1,020**	**960**
Liabilities						
– Long-term loans	180	920	1,120	-	-	-
– Current liabilities	70	140	340	100	120	160
Total Liabilities	**250**	**1,060**	**1,460**	**100**	**120**	**160**
ROI	**4%**	**15%**	**35%**	**10%**	**22%**	**40%**

Required:

(a) Evaluate the performance of the two divisions clearly stating which Manager and which division appears to have achieved the better performance. As a guide (i.e. in addition to any other ratios you feel will be of assistance) calculate growth ratios, profitability ratios (including the residual income), asset utilization ratios, liquidity ratios, cost control ratios and financial risk ratios. (25 marks)

(b) Discuss three (3)factors of additional information that would be required in order to provide a more comprehensive assessment of the financial performance of Divisions P and Q. (3 marks)

(c) Discussfive (5) factors that should be taken into account when evaluating the comparative financial performance of Divisions P and Q. (5 marks)

(d) Division Q Manager, whose division has been in existence for 15 years, relies on the traditional incremental budgeting system for financial reporting and budgeting. In view of the poor performance of the division relative to Division P, he/she has conducted a rigorous review of the existing system and has resolved to replace it with the Beyond Budgeting system.

Required:

ExplainSeven (7) drawbacks of the traditional budgeting system that might have compelled the Division Q Manager to move to the Beyond Budgeting model of planning. (7 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt any THREE (3) questions in this section.

QUESTION TWO

Fertilizer Manufacturing Ltd (FML) was founded in 1992. It produces fertilizers and agro-chemicals and it is situated in Zambia where it operates two (2) production plants that are both run as profit centres. FML supplies both the local market and surrounding countries with its products.

The ammonia plant manufactures liquid ammonia. This is of high grade and manufactured specifically for the production of liquid urea and there is no intermediate market for it. The urea plant has a monthly maximum capacity of 121,875,000 litres and minimum capacity of 73,125,000 litres. Normally, the liquid urea is produced in batches of 24,375,000 litres.

After manufacturing the liquid ammonia, it is transferred to the urea plant which produces the urea fertilizer for top dressing. FML is currently negotiating with the government to supply the minimum quantity. There is a regional demand for top dressing and FML is the only producer in the region; although substitute products are available.

The following schedule shows the monthly demand and price per litre of liquid urea.

Output(Litres)	Price K per litre
73,125	500.00
97,500	437.50
121,875	375.00

The Manager of the urea plant has autonomy to choose the level of output of liquid urea, and always selects the level of output which maximises the urea plant's contribution.

The marginal costs incurred in the production of liquid urea are as follows:

	K per litre
Costs incurred within the Ammonia Plant	30
Costs incurred within the Urea Plant	60

The transfer price for the liquid ammonia has been set at K100 per litre. Taurai Dube, the urea plant Manager, is concerned with current transfer price of which he feels it is too high. He has suggested that the transfer price be set at ammonia plant's marginal cost which would increase contribution for FML as a whole.

At a recent second quarterly board meeting, the possibilities of expanding its operations into the neighbouring country were discussed. It was unanimously agreed that a plant similar to the urea plant be opened in the forth coming year. The chief executive has suggested that the most appropriate basis of the international transfer price will be to transfer at cost.

Required:

(a) Evaluate Taurai Dube's suggestion of increased contribution for FML. Make the necessary calculations to support or contradict Mr Dube's suggestion. (10 marks)

(b) Evaluate the setting of the transfer price at cost. (4 marks)

(c) Explain how multi-national companies can use transfer pricing to reduce their overall tax liability and the steps that national tax authorities have taken to discourage the manipulation of transfer prices. (6 marks)

[Total: 20 Marks]

QUESTION THREE

Telzam Ltd (TL), a Zambian company, operated as national telephone company for 40 years and enjoyed a monopoly status. However, recently the government decided to deregulate the telecommunications industry. This deregulation has exposed TL to aggressive competition from new entrants. TL investments are mainly in fixed landline technology. Thus its competitive position has been undermined by developments in the wireless technology. Customers now choose to use mobile phones. The change in consumer tastes and in technology has forced TL to also invest in the mobile and digital data technology. As a monopoly provider of landline telephone services in Zambia, TL suffers from a bureaucratic culture and structure. This means that it is inflexible: slow to react to market changes than the new entrants. A lot of its telephone engineers belong to the trade union; making it difficult to effect changes. For example, during the year, TL announced that it planned to implement job cuts and re-deployment of workers. This was not well received and trade union members resolved to go on an industrial strike which lasted over a month and cost TL substantial losses in revenue.

The introduction of broadband digital technology has made possible high speed access to the internet. This is a welcome development for fixed landline operators like TL because its fixed landline systems can be adapted for broadband use. TL's senior management has seized this opportunity and has since attracted 100,000 subscribers to the latest broadband service. The company has also launched a service for travellers to access internet services at designated public places using laptops and smart phones. But the introduction of broadband digital technology requires training in new skills and the engineers required to undertake this training have threatened to go on strike in support of a substantial wage increase to compensate them for using the new skills required for the job.

Required:

(a) Explain the key internal and external drivers for change in the strategy and operations of the TL. (4 marks)

(b) Discuss the difficulties that TL is likely to face in introducing the change programme. (4 marks)

(c) (i) Evaluate the success of TL in managing the change process to date. (4 marks)

(ii) Explain how TL might go about managing change in the future. Use any model of change management. (8 marks)

[Total: 20 Marks]

QUESTION FOUR

Frames Specialists Plc (FS Plc) manufactures bicycle frames, aluminium frames and formatted wooden boards. FS Plc is structured into two (2) divisions, namely, the Bicycle Frames Division (BFD) and the Aluminium Frames and Boards Division (AFBD). Currently, FS Plc absorbs production overheads to the costs of each product on the basis of machine hours.

BFD manufactures bicycle frames on which other bicycle parts such as handle bars and tyres are fitted. Suppliers of frame components make frame parts in which seamed tubes are made by drawing flat steel strips material which are wrapped into a tube. BFD then buys these tubes pre-cut to correct lengths and sizes. The pre-cut frame tubes are top tube, head tube, down tube, bottom bracket shell, seat tube, seat stays and chain stays. A factory worker assembles these parts by fastening them together. BFD manufactures five standard sizes of frame to be used for different types of bicycles such as mountain bikes, road bikes, folding bikes and hybrid bikes.

The AFBD manufactures aluminium door frames, window frames and partitioning wooded boards which are used in the final stages of constructing shopping malls. There is a large range of these products, and a lot of customers also want ready-made designs or short production runs of one-off shop partitioning projects. Aluminium is cut and drilled using the AFBD's own high precision cutting and drilling machinery. Individual pieces of aluminium are then screwed together by workers to make aluminium frames for doors, windows, showers, etc. If required by a customer, glass panes are fitted into the frames. Four types of glass panes are clear, frosted, tinted and reflective. Customers specify which type they want and prices differ accordingly with the cheapest being the clear glass and the reflective glass being the most expensive. Workers also cut wooden partitioning boards into different sizes using electric machines.

AFBD's plan is to make new ready made products at a price more or less equal to the simpler and more conventional products offered by its competitors. Many of its customers go for aluminium door frames and/or window frames coated in gold, silver or bronze at the end of the manufacturing process. Customers are charged at total cost plus 12% mark up. The AFBD Manager has realized that this pricing policy does not reflect the complex nature of the production environment and the competitive nature of the industry. It, therefore, doubts whether some products are profitable or not.

A few months ago some customers complained about paint coatings peeling off the frames after a short period. Consequently, one shop owner sued FS Plc for loss of business because it had to temporarily close the shop whilst remedial work was being done. To address this poor workmanship, the AFBD has resolved to increase the number of workers inspecting the quality of the coating on the frames and also invest in a photo imaging machine so as to make inspection more efficient.

The Managing Director of FS Plc attended a conference where a presenter talked about the advantages of using Activity Based Costing (ABC) and how Activity Based Management (ABM) helps in improving both strategic and operational performance.

He has requested you as the Management Accountant to explain more about ABC and ABM and he wishes to know whether these techniques are useful to FS plc. He said he did not want you to do detailed calculations at this stage.

The following financial details relate to the BF Division and the AFB Division:

	BFD	**AFBD**
	K'000	**K'000**
Sales Revenue	51,630	41,210
Direct materials	24,000	20,200
Direct labour	9,000	1,700
Direct expenses	150	1,300
Production overheads analysis		
Machining time	-	5,554
Set up time for machinery	-	1,150
Storage	240	790
Purchase orders	100	600
Quality control	70	850
Total overheads	410	8,944
Gross profit	18,070	9,066

Required:

(a) (i) Advice the MD how activity based costing can be implemented. (4 marks)

(ii) Assess whether it would be more appropriate to use activity based costing in the BFD and the AFBD than the costing basis currently used. (8 marks)

(b) Advise the Managing Director how ABM can be used to improve business performance in the FS plc. (8 marks)

[Total: 20 Marks]

QUESTION FIVE

Speed Kills Company (SKC) is a new company that was recently awarded a contract to operate traffic safety cameras on public roads in Lusaka. During its first three months of operation when the equipment was put on the roads, SKC recorded a number of different traffic offenses such as over speeding, driving while drunk and disobeying traffic lights.

The management of SKC received a number of complaints concerning the technology being used. The system was unable to capture certain offences unless physical check points were conducted. Hence, a number of motorists complained that some charges slapped on them were not precise. The motorists had anticipated SKC to use modern equipment that should be able to detect alcohol, defective cars and expired fitness and make it possible for the offenders to be able to settle spot payments without visiting a bank.

Due to these complaints, SKC has temporarily suspended the implementation of these speed control services until it has invested in advanced Decision Support Systems (DSS) and the management also wants to apply the principles of business process re-engineering (BPR) to the operations of SKC.

Required:

(a) Discuss how SKC can make use of the following in resolving the complaints it has experienced in the three months of operation.

(i) Value added networks or "Extranet" (3 marks)
(ii) Groupware (3 marks)
(iii) Workflow Systems (3 marks)
(iv) Expert System (3 marks)

(b) Explain the principles of Business Process Re-engineering (BPR) which SKC can apply to resolve the problem. (8 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

CA3.5 ADVANCED MANAGEMENT ACCOUNTING SUGGESTED SOLUTIONS

SOLUTION ONE

a) Division P Division Q

	Division P				Division Q		
	2019	2020	2021		2019	2020	2021
ROI	4%	15%	35%		10%	22%	40%
RI(K'000)(W.1)	(57.4)	473.20	1,809.2		615	765	920
Sales Growth (W.2)	-	54.5%	97.1%		-	6.1%	2.9%
Net Profit margin	3.2%	5.9%	10%		1.4%	2.9%	4.4%
Market Shares(W.3)	11.0%	11.3%	19.7%		10.6%	10.3%	8.6%
Asset turnover(W.4)	1.14	1.50	2.20		7.30	7.80	9.00
Total costs to sales(W.5)	97%	94%	90%		99%	97%	96%
Mtce repairs to sales(W.6)	3.2%	2.2%	1.6%		3.5%	3.7%	3.9%
Advertising to sales (W.7)	7.1%	4.8%	4.4%		5.8%	6.0%	5.97%
Working capital ratio(W.8)	14.3:1	7.1:1	4.7:1		9.0:1	7.8:1	5.1:1
Gearing(W.8)	8.5%	28.9%	26.8%		-	-	-

ROI and **RI**

Generally Divisions P and Q have performed extremely well and the managers of both divisions ought to - on the face of it – be congratulated. They have both shown significant increases in profit and in the ROI. Their ROI's also exceed their respective targets of 18% and 15%.

Division Q's ROI is higher (40%) than Division P's (35%). But this could be due to reduced discretionary costs of research and development as well as lack of investment in new plant and machinery. This could be deliberate so that the low capital employed figure can produce a high ROI without substantially increasing the profit.

The Residual Income (RI) figures remove the possibility of manipulating the ROI by massaging the capital employed figure and cutting on discretionary costs. So although in relative terms (ROI) Division Q has done better than Division P, in absolute terms (RI) Division P has performed better by contributing more to T plc's profits, i.e. RI of K1,809.20 compared to K920. This appears to reflect Division P's robust investment programme which has produced the rewards of high profits, whereas Division Q has made little or no investment over the period. Its ROI is presumably benefiting from the effects of decreasing net book values of assets. This effect is amplified by the fact that Division Q appears to be renting premises whereas, presumably, Division P has bought its own factory.

Sales growth

Again Division P is seen to perform well with significant growth in its new area. When this is matched with the increasing net profit percentage the eight-fold increases in profit is explained. The increase in the profit percentage may, in part, be attributable to this growth as fixed costs are more easily recovered at higher sales levels. Division Q is still growing but the falling growth rate should be investigated to see if it is due to the end of several product life cycles, a fall in the overall market or inefficiency.

Net Profit Margin

Both divisions have been showing increased profits; although the growth of Division P is considerably greater than that of Q. Since P is a new division, it has the greater scope for growth. Division P manager deserves the credit.

Market shares

This shows that, as hoped from a new division, Division P's market share is growing. The market share almost doubled from 11% to 19.7%. Q's share on the other hand is falling (10.6% to 8.6%) which must reflect badly on Division Q manager. This could be due to lack of competitive products in its portfolio (products reaching their end life) because of little investment in research and development or stiff competition in the industry.

Asset Turnover

This shows if assets are being utilized efficiently. Both divisions are experiencing increasing asset turnovers suggesting that assets are being well utilized. But for Division Q, the increase is modest with a leap in 2021. The increase is possibly due to decreasing net book values of assets. So the asset turnover is probably misleading.

It is difficult to compare directly these ratios because the two divisions are operating in different markets and may be involved in very dissimilar businesses.

Total costs to sales.

Total costs to sales have been high in both divisions but have been decreasing over the period suggesting a bit of cost control. Otherwise the divisional sales revenues are almost equal to the total costs. Direct materials and labour, production overheads, other committed costs and other managed costs are very high in Division Q relative to P. This could be due to the size of the division, lack of cost control, etc.

Maintenance & repairs to sales and Advertising to sales

Maintenance and repairs costs in Division P have ranged from 3.2% to 1.6%. Presumably, these costs are low because not a lot of maintenance and repairs are carried out on new equipment. However, Division Q's maintenance/repair costs are higher (averaging 4% per year) than P's and have been increasing over time. This is probably due to the old equipment which frequently break down and require maintenance and repairs.

Division P spent 7.1% of its sales revenues on advertising and sales promotion in the first year of operations; and it is understandable because its product required awareness. But over the period expenditure on this item has been reducing. On the other hand, Division Q's expenditure on the same has been around 6%: a bit low for sales revenues of over K31 million per year. This manager may not be spending enough on this discretionary expenditure so as to boost the division's profit.

The maintenance and the advertising ratios would indicate the extent to which each manager is looking for long-term, sustainable growth in profits. There is the danger that, in view of the imminent review of their contracts, the divisional managers may be trying to produce impressive short-term results at the expense of future profits.

Working capital ratio (current assets/current liabilities)

The current ratio for both divisions are good as they are above the benchmark of 2:1. Division Q has fewer current assets and liabilities (no loans and therefore no interest payments and accruals)

Gearing

The financial risk as measured by gearing is low and need not worry Division P manager. The loan is presumably helping generate good profits from new plant obtained on lease. There is no gearing in Division Q: the manager is not replacing assets may be to avoid the falling of his ROI.

Conclusion

These ratios would indicate the extent to which each manager is looking for long-term, sustainable growth in profits. There is the danger that, in view of the imminent review of their contracts, the divisional managers may be trying to produce impressive short-term results at the expense of future profits.

Division P seems to have been successfully launched by Division P manager whereas Division Q manager's slowly falling market share gives cause for concern.

Appendix of workings

W.1 Residual Income

	Division P				Division Q		
	2019	2020	2021		2019	2020	2021
	K'000	K'000	K'000		K'000	K'000	K'000
Total Assets	2,000	2,400	3,400		1,000	1,020	960
Less:Current liabilities	(70)	(140)	(340)		(100)	(120)	(160)
Capital employed	**1,930**	**2,260**	**3,060**		**900**	**900**	**800**
Net profit	70	200	680		90	200	320
Add: back Head office Costs	220	680	1,680		660	700	720
Controllable profit	290	880	2,360		750	900	1,040
Less: capital charge							
18%/15% x capital employed	(347.40)	(406.80)	(550.80)		(135)	(135)	(120)
RI	**(57.40)**	**473.20**	**1,809.20**		**615**	**765**	**920**

Workings:

W.2 Sales Growth

Division P: 2019/2021: (3,400/2,200) -1 =54.5%; Div Q: (7,000/6,600)-1 =6.1%

W.3 Market shares (e.g.)

	P		Q
2019	2,200 x 100 / 20,000	= 11.0%	6,600 x 100 / 62,000 = 10.6%
2020	3,400 x 100 / 30,000	= 11.3%	7,000 x 100 / 68,000 = 10.3%

W.4 Asset turnover (Sales/capital employed)

	Division P				Division Q		
	2019	2020	2021		2019	2020	2021
	2,200/1,930	3,400/2,260	6700/3060		6600/900	7,000/900	7,200/800
	1.14	**1.50**	**2.19**		**7.33**	**7.8**	**9.0**

W.5 Total costs to Sales 2,130/2,200 x100% = 97% 6,510/6,600 x100% = 99%

W.6 Mtce & repairs to sales 70/2,200 x 100% = 3.2% 230/6,600 x100%=3.5%

W.7 Advertising to sales 156/2,200 x 100% =7.1% 386/6,600 = 5.8%

W.7 Working capital 1000/70 =14.3:1 900/100 = 9.0:1

W.8 Gearing
(Long term debt/ Long term debt + Net total assets)

2019 =	180/(180+1,930) x 100% = 8.5%	NIL	
2020 =	920/920+2,260) x 100% =28.9%		NIL
2020 =	1,120/1,120+3,060) x 100%=26.8%		NIL

(b) There are limitations in the data given to fully assess the financial performance of the two divisions. Additional data required include:

i) In additional to market share data given, it would be useful to have financial data relating to operating and non-operating costs of companies in the same industry to establish how well the divisions are performing in the markets they operate.

ii) It would be useful to have data for 2018 for Division Q so as to have trend data. This will make it possible to have a full picture for this division and a much better assessment of the current performance.

iii) Cashflow projections. This information is not provided. Only current assets and current liabilities are provided. A detailed breakdown of the working capital requirements for each division would be useful to ascertain whether the divisions can meet their obligations as they fall due. In particular, Division P has loans which it is still servicing.

iv) Budgets for each division for (at least for the year 2021) are not provided. The actual performance given should be compared with the budgets to ascertain how well the divisions have performed in relation to the budget. A budgetary control statement of favourable and adverse variances will enable investigations to be carried out and control action taken.

(c) The five factors that should be taken into account when evaluating the comparative financial performance of Divisions P and Q include:

i) Division Q has been established for longer than Division P.

ii) Division P operates in a risky business whereas Division Q is in a less risky business(old products)

iii) Division P is operating in a growing market whilst Division Q is operating in a falling market.

iv) The relative size of the divisions. Which is bigger? Division Q seems to be larger and could be complex to run.

v) Division P contracts loans and pays interests on leased plant and machinery. But Q does not.

vi) Division P owns its factory whereas Division Q rents its factory.

vii) Revise the ROI based on controllable profit by excluding head office costs in calculating the net profit. Also exclude long-term loans in the capital employed figure. Performance measurement will then be on like to like terms. And on factors which managers can control.

(d) Some of the drawbacks of the traditional budgeting system that might have compelled Division Q manager to move to the Beyond Budgeting model of planning could be that traditional budgeting systems:

i) Cannot cope with a fast changing environment and are often out-of-date before the start of the budget period.

ii) Focus too much management attention on the achievement of short-term financial targets such as the ROI of 15%. Instead managers should focus on the things that create value for the business (e.g. innovation in Division Q, building brand loyalty, responding quickly to competitive threats, etc.)

iii) Re-inforce a 'command and control' structure that prevents junior managers from exercising autonomy. This may be particularly true if T plc is using a top-down approach to allocate budgets to managers.

iv) Take up an enormous amount of management time that could be better used. It may be that budgeting in T plc is a lengthy process involving much negotiation, re-working and updating. However, this may add little to the achievement of divisional performance and the performance of T plc as whole.

v) Are based around business functions (sales, marketing, production, etc). However, to achieve the business objectives, the focus should be on business processes that cut across boundaries and reflect the normal needs of the customers.

vi) Encourage incremental thinking by employing a 'last year figure plus a certain %' approach to planning. This can inhibit innovation that may be necessary in a fast –changing environment.

vii) Can protect costs rather than lower the costs. Unused budget allocations at the end of the year encourage managers in T plc to spend the whole budget in order to protect the allocations they receive.

viii) Encourage a negative mentality among divisional managers in T plc by building slack in the budgets and so meeting the budget becomes easier.

ix) Tend to encourage inward-looking, short-term culture that focuses on achieving a budget figure, rather than on implementing business strategy and creating shareholder value over the medium to long-term.

SOLUTION TWO

(a) Evaluation

(i) Transfer price of liquid ammonia at K100 per litre

Output of urea	Total revenue	Marginal costs@K160	Total contribution
Quantities (litres)	K	K	K
73,125	36,562,500	11,700,000	24,862,500
97,500	**42,656,250**	**15,600,000**	**27,056,250**
121,875	45,703,125	19,500,000	26,203,125

(ii) Transfer price of liquid ammonia at K30 per litre

Output of urea	Total revenue	Marginal costs@K90	Total contribution
Quantities (litres)	K	K	K
73,125	36,562,500	6,581,250	29,981,250
97,500	42,656,250	8,775,000	33,881,250
121,875	**45,703,125**	**10,968,750**	**34,734,375**

The above analysis shows the best contribution made by Urea Plant from the production of Urea (the maximum contribution is in bold). The marginal costs are made up of the transfer price plus the other Urea Plant costs (K60 per litre).

This suggests that pre-tax contribution will increase by K7,678,125 if the transfer price is set at K30 and production increased from 97,500 litres to 121,875 litres.

However, Ammonia Plant will suffer a loss in contribution because the transfer price is lower and contribution will fall from K6, 825,000 (K100 – K30) x 97,500 litres to zero.

The net impact on FML is therefore K7,678,125 – K6,825,000 = K853,125.

FML's profits have therefore increased. This is because there is no opportunity cost from the sale of liquid ammonia so the true cost of the transfer is K30 per litre. The inflated transfer price of K100 is causing the price of urea to be artificially inflated and the output to be reduced as a result. However, this conclusion assumes that this capacity is available and that FML is not able to use spare capacity for any other activity which earns more contribution.

(b) The cost plus method works by comparing a company's gross profits to the overall cost of sales. It starts by figuring out the costs incurred by the supplier in a controlled transaction between affiliated companies. Then, a market-based markup—the "plus" in cost plus—is added to the total to account for an appropriate profit. In order to use the cost plus method, a company must identify the markup costs for comparable transactions between unrelated organizations.
The cost plus method is very useful for assessing transfer prices for routine, low-risk activities, such as the manufacturing of tangible goods. For many organizations, this method is both easy to implement and to understand. The downside of the cost plus method (and really, all the transactional methods) is the availability of comparable data and accounting consistency. In many cases, there are simply no comparable companies and transactions—or at least not comparable enough to get an accurate, reliable result. If it's not an apples to apples comparison, the results will be distorted and another method must be used.

A transfer price at costis usually acceptable to tax and customs authorities since it provides some indication that the transfer price approximates to the real cost of supplying the item and because it indicates that they will therefore receive a fair share of tax and tariff revenues. Cost based approaches do not totally remove the suspicion that the figure may have been massaged because the choice of the type of cost can alter the size of the transfer price.

(c) International transfer pricing

Transfer pricing refers to the prices of goods and services that are exchanged between companies under common control. For example, if a subsidiary company sells goods or renders services to its holding company or a sister company, the price charged is referred to as the transfer price.

1st para not very necessary: question has not asked for it and candidates may not refer to it

Entities under common control refer to those that are ultimately controlled by a single parent corporation. Multinational corporations use transfer pricing as a method of allocating profits among their various subsidiaries within the organization.
In some cases, companies even lower their expenditure on interrelated transactions by avoiding tariffs on goods and services exchanged internationally.

When a company has operations in different countries with separate taxation systems, they may seek to minimise their total tax liability by declaring low profits in the nations with high corporation tax rates, and high profits in nations with low corporation tax rates.
Transfer pricing strategies offer many advantages for a company from a taxation perspective, although regulatory authorities often frown upon the manipulation of transfer prices to avoid taxes. Effective but legal transfer pricing takes advantage of different tax regimes in different countries by raising transfer prices for goods and services produced in countries with lower tax rates.
National governments are rising up to manipulation in the tax liability involving transfer pricing, and are seeking greater transparency to ensure that the transfer prices have not been manipulated. They insist that the transaction is treated at as if the two subsidiaries are independent. Thus the charge should be based upon market price.

SOLUTION THREE

(a) **Drivers for change**

Organisational change can be given by both external developments and/or internal organizational factors. The key drivers for change in TL are as follows:

External Factors

- Government decisions to deregulate the telecommunications industry
- Technological developments in wireless technology (mobile phones!)
- Development of broadband internet technology
- Shift in consumer tastes away from fixed line telephones to mobile phones

Internal Factors

- Senior management decisions to enter the mobile telephone market and later, broadband internet services
- Manager's decision to sack workers
- Workers' decision to take industrial action to preserve jobs
- Trade union's decision to support the actions of TL employees

(b) The key difficulties that the TL is likely to face in making all the necessary changes are as follows.

i) Existing Culture

The inherited bureaucratic culture of the organization with its rules and procedures is likely to act as a barrier to change. However, the current culture could be changed to encourage flexibility hence embracing change.

ii) Employees' resistance to change

Employees will resist change due to:

- Fear of being unable to cope with the new technology
- Unwillingness to throw away existing skills and learn new ones
- Fear of jobs losses
- Fear that new jobs will be more specialized and more boring.

iii) Action of trade unions

The threat of action by the trade union will make change even more difficult. The company may incur loss as a result of the intended strike because little or no revenue will be achieved. However, employees will be paid their salaries.

(c) **The change process**

(i) Success to date

TL has had a mixed record of success in the management of change to date. The main success is that it has managed to change from being a provider of only fixed line telephone services to one that now also provides mobile and broadband internet services. This is despite the old bureaucratic culture and structure.

However, the main **failures** have been as follows;

- Attempts to downsize the workforce results in industrial action that cost TL millions of Kwacha in lost sales revenue.
- The current implementation of broadband services is also meeting with resistance.
- Engineers have threatened industrial action in support of a large pay rise.

(i i) Managing Future Change

There is no universal plan for the successful management of change as each situation is different. At best, there are useful models and principles to help in the design of the change process. One such model was developed by Kurt Lewin
Lewin argued that some (usually external) forces are outside management's control and so management should concentrate on the internal forces driving change and those resisting change. Lewin suggested a three-step process to then manage the changes as follows:

1) 'Unfreezing'- Which involves reducing forces that resist change. This involves providing people with an understanding of why change needs to occur so that they can more easily accept it.
2) 'Changing behaviour'- in such a way that new attitudes, values and behavior become part of employees' new ways of thinking.
3) 'Refreezing'- introduction mechanisms, such as reward systems and structures, to ensure that the new behavior pattern is maintained.

In the case of TL, many of the forces for change are outside the control of the senior management. Management needs to accept the change in the market place and adopt strategies to deal with the threats and opportunities the change present.

Unfreezing

Management can use the threat of competition to persuade employees and the trade union that, unless changes are made, the very survival of the company and, therefore, the jobs of employees, are at risk. This should create dissatisfaction with existing methods.

Changing behaviour

Changing behaviour is difficult and will require a range of methods:

- Effective *communication* of what needs to be changed and why
- Regular *meetings* involving all employees
- *Negotiations* with unions to ensure their participation in the change process.

The directors of TL may be tempted to force changes through regardless of the reasons for resistance. The danger of this approach is that employees often return to the old ways of working once the pressure is removed.

Refreezing

- To consolidate changes made appropriate incentives and penalties must be put in place

Rather than sitting still there should be an emphasis on constant improvement to raise levels of productivity even further.

SOLUTION FOUR

(a) **Implementation of ABC**

(i) ABC is an alternative to absorption costing, which is the method currently used by FS plc. ABC is a detailed fact gathering and data analysis technique.

In order to implement ABC production, overheads need to be grouped into cost pools as in the analysis of production overheads for FS plc in the management accounts extracts.

Then cost drivers for each cost pool must be identified. Cost drivers are the activities which bring about the costs, for example, the set-up of the high precision machinery in AFBD will be driven by the number of batches of production.

Once the cost pools and their associated cost drivers have been established, the cost per unit of cost driver can be calculated for each individual activity. The overhead costs are absorbed into each unit based on how much of the activity the unit uses, therefore, for example, units which require more quality control and testing will be allocated more of those costs. The overhead costs are then added to the prime costs in order to calculate the full cost of production.

(ii) **Appropriateness of ABC**

ABC is especially useful where there is a **wide range of complex products** and where production overheads form a **larger proportion** of total production costs. In the AFBD, there is a large range of products, many of them custom made (e.g. preferred specific coatings for frames or one-off designs. Production overheads form 28% (8,944/ (32,144) of total production costs, and the use of ABC will be appropriate in this division.

ABC enables a more **accurate** cost of production to be calculated, which is very useful in setting products prices. This could be especially useful in AFBD which has a wide range of products subject to a number of manufacturing processes. It will help to ensure that each product is priced high enough in order to produce an acceptable margin, but not so high as to become uncompetitive. This is especially important as AFBD plan is to produce custom made products at prices comparable to competitors who produce simpler, more conventional products.

ABC enables managers to determine **what activities drive the costs**, and so focus on **reducing those activities** to control costs. Not all production overheads, for example, quality control costs of the coating in the AFBD, are related to production volumes. It is equally possible to apply ABC techniques to overheads other than production overheads.

Problems with ABC

ABC is less useful in businesses such as the BF Division where there is **a small range** of relatively simple products and where productions overheads only comprise around 1% of total production costs. Of the production overheads in BF Division, storage is by far the biggest and is likely to be driven by production volumes.

It may be difficult to determine what the drivers of production costs are. Storage costs could also be related to the insolvency of a customer. It may be impossible to allocate all overheads to the specific activities which drive them and so management will have to apply judgement.

Calculation of ABC may be **time consuming**, **complex** and **poorly understood** by managers. As such the time and expense of doing so may not be justified. This appears to be case in the BF Division where there are only a few, relatively simple products and few productions overheads. Whereas in the AFB Division, where there is a wide range of more complex products and a high proportion of production overheads, ABC is more appropriate than the traditional absorption costing method currently used at FS plc.

(b) Activity Based Management

Activity Based management (ABM) is the term given to those management processes that use the information provided by an activity based cost analysis to improve organizational profitability. It focuses on managing the business on the basis of the activities that make up the organization. It sees the business as a set of linked activities which ultimately add value to the customer. So by managing activities costs will be managed in the long-term. The goal of ABM is to enable customer needs to be satisfied while making fewer demands on organizational resources.

FS plc can use ABM to improve business performance by:

i) Re-pricing products and optimizing new product design

Managers can more accurately analyse product profitability by combining activity based cost data with price information. This can result in the re-pricing or elimination of unprofitable products. This information also is used to accurately estimate new product costs. By understanding cost drivers managers can design new products more efficiently.

ii) Reducing Costs

ABC identifies components of overhead costs and the drivers of cost variability. Managers can reduce costs by decreasing the cost of an activity or number of activities per unit. FS plc will ensure that the activities of set ups, quality control/inspections and purchase orders are reduced or eliminated by not performing those activities which do not add value. FS plc can also reduce costs by developing better relationships with customers and suppliers.

iii) Influencing strategic and operational planning

Implications for action from an ABM study include target costing, performance measurement for continuous improvement and resource allocation. From the performance management view point two key features are cost visibility and the generation of activity cost profiles. I.e. by using ABM, FS plc will be able to see costs in the open.

SOLUTION FIVE

(a) Resolving the complaints

i. **Value added network (VAN)** which is commonly referred to as **Extranet** can be used by speed kills company by linking networks that facilitates the adding of value to products and to services by using information.

VAN can help create more business lines of offenses which may not be captured under the current system. VAN can link each offense to the offender's personal information such as cell number, email what up such that a snap short of the offense is sent automatic to the offender.

VAN gives mutual completive advantages where if implemented, the sales or number of offenses will be captured without conducting check points where by increasing profits.

(ii) **Groupware** is collection of tools to assist collaborative work in an organization. Speed Kills Company can use this tool to create a linkage within the system from one offense to the other. The system should be able to detect how many times the offender has done the offense.

Groupware products are designed to assist communication between members of the group and capture information that the group is working with. Speed Kills can be able to obtain data that it use for its decision and feedback to stakeholders. It can be used for statistics gathering etc.

Groupware can be a source of information for different organizations such as police, government and car manufacturers on the nature of cause of accidents etc. Complex information can be obtained as long as the offender committed a single offense.

(iii) **Workflows** is the series of tasks that must be performed in order to achieve required outcome in an organization. Speed Kills would want the systems that is able to make the offender of a traffic offense be able to pay there and then without going to visit the bank.

In a manual system, where officers are charging offenders manually, there is a possible dispute or offender refusing the charge but when workflows is automated such problems are avoided because the system should be able to detect the defective car or capture and produce the video that can be sent to the offenders.

SKC can improve delivery by use of automated workflows because tasks can be completed in short times unlike manually done. This can even be done automatically a charge is committed a charge is sent to your bank and your account is automatically debited.

(iv) **Expert system** is a computer program that captures human expertise in a limited domain of knowledge. This software uses a knowledge base that consist of facts, concepts and the relationships between them and uses a pattern matching techniques to solve the problems.

SKC can design a system that is even able to give discounts depending on the number offences committed or not committed.

Expert system are able to make judgment about a given situation and be able to make a decision and it can be able to make some calculations, etc.

Storage of large volume of data that can be used during planning, decision making and data analysis and incorporating any comparisons or relationships between offenses.

(b) Business Process Re-engineering (BPR) is a fundamental redesign of business process to achieve dramatic improvements in key measures such as cost, quality, service and speed.

There are seven principles of BPR

1. **Involve those people in the process who face the output or who use the outcome**

This principle states that the work should be done by the individual getting the output, i.e., the consumer. Today, this can be observed as the "self-service".

For example, if a customer is facing any problem, he has to fill in the data himself instead of any office doing it for him. It pushes the work to the consumer.

2. **Merging data collection and processing units**

This principle has matured and is visible in the concept, division of labor. This means the data handling must be done by the same person who is collecting the data. This reduces the number of errors by eliminating external contact for a process.

For example, a company has a structure wherein one department collects the information while the other records it. Here, the shared database will have many errors while translating the information from one department to another.

3. **Shared databases to interconnect dispersed departments**

The advances in information technology allow the company to connect separate units that are geographically dispersed by using a shared database.

Centralized databases provide economies of scale in addition to providing flexibility and quick responses to the customers as there are better agreements between the vendors.

4. **Bridging the processes which are running on similar lines**

According to Hammer, the processes of the activities must be integrated rather than the end results. The parallel functions must be coordinated using communication networks, shared databases.

These parallel activities must be linked continuously and coordinated at the process execution. This will eliminate the high costs and delays in the outcome of the process.

5. **Decision making should also be a part of the work performed**

There must be decision aiding-technology to cut unnecessary controls and to keep a check in the process. Hammer states the decision should be made by the person who is doing the work.

The processes can be improved by empowering the authority of the resource with the responsibility to make the decision and improve the workflow.

6. **Geographical dispersed resources should be treated as if they are centralized**

Geographical dispersed resources should be treated as if they are centralized. This can be achieved through networking, hence using the same database. As pointed in principle three (3) above, this will provide economies of scale.

7. **Capture information once**

Information will be captured at the source. This approach avoids erroneous data entries and costly re-entries.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA 3.6: ADVANCED FINANCIAL MANAGEMENT

FRIDAY 16 SEPTEMBER 2022

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

The question is compulsory and must be attempted.

QUESTION ONE – (COMPULSORY)

The Research and Development Department of T-BAG Ltd has come up with a data storage card called SILA at the lowest cost. The storage card has the capacity of 128TB but can cost as low as the ordinary storage cards. T-BAG Ltd spent K1million on research and development to come up with the final product of SILA. The company is considering procuring a new machine for the production of SILA. The machine will cost K3.8million and is expected to last for five (5) years at which time it will have an estimated scrap value of K0.8million.

T-BAG Ltd forecast to produce 100,000 units per year of SILA. The company expects to make contribution per unit at current price of K1,000 in the first year as detailed below:

	K'000
Selling price	3.6
Materials	(1.4)
Labour	(1.2)
Contribution	**1.0**

The materials and labour costs are expected to inflate at 9% and 6% annually respectively for three (3) years. After this period, material and labour costs will inflate by 11% and 10% respectively. Fixed overheads of the company currently amount to K1million and expected to increase by 6% per year. The Management Accountant for T-BAG Ltd has decided that 25% of these overheads should be absorbed into SILA. T-BAG Ltd expects to increase the selling price of SILA by 12% annually. An additional K300,000 of working capital will be required at the start of the project and expected to inflate in line with materials.

The new machine to be used to produce SILA qualifies for capital allowances at the rate of 25% reducing balance basis. T-BAG Ltd pay tax at the rate of 20% a year in arrears. The nominal cost of capital T-BAG Ltd uses to evaluate all its projects is 10%.

Besides the SILA project, T-BAG is also considering three (3) more projects available for investment with the following cash flows and NPV's:

Year	PROJECT ZE01 (K'million)	PROJECT ZA01 (K'million)	PROJECT ZB01 (K'million)
0	(5)	(8)	(6)
1	(4)	2	(6)
2	8	6	4
3	4	5	12
NPV	0.976	2.529	0.862

The three projects are infinitely divisible and the cash available for investment after SILA investment is as follows:

Year 0	K14 million
Year 1	K5 million

The board of T-BAG Ltd resolved not to take on additional debt because it has in issue floating rate loan notes with five (5) years to maturity. The new Chief Executive Officer (CEO) has wondered why the company had to issue floating rate loan notes rather than fixed rate which has greater certainty of amount payable.

Required:

(a) As a Financial Consultant, write a report to the board of T-BAG Ltd evaluating the financial viability of the proposed investment in SILA. State clearly any assumptions. (22 marks)

(b) Formulate the linear programming model necessary to decide how best to invest the capital available. Any capital not used in Year 0 may be put on deposit for one year and earn interest at 8%. (8 marks)

(c) Explain the reasons T-BAG Ltd might have chosen to borrow at a floating interest rate rather than at fixed rate which has a greater certainty regarding the amounts payable. (10 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt any THREE (3) questions.

<u>QUESTION TWO</u>

KNL Inc.is a small non-listed Zambian company based in Livingstone. It is a popular holiday destination. Its principal business is the manufacture and sale of a wide variety of items for the tourist market, mainly souvenirs, gifts and traditional clothing. The company owns and operates five retail stores in the holiday destinations across the Country. KNL Inc. has experienced growth over the past five (5) years and now wishes to obtain a listing on the Lusaka Securities Exchange. As part of listing requirement, KNL Inc. intends to improve its corporate governance by constituting a board as well as revise its financial strategies. Management of KNL Inc. has proposed that the board shall establish a remuneration committee comprising 50% Executive Directors and 50% Non-Executive Directors. A Non-Executive Director shall chair the remuneration committee. The Chairman of the company may also hold the position of Chief Executive, although this shall not normally be for a period of more than three (3) years. No Director shall hold directorships in more than twenty (20) companies. The Directors should regularly report on the effectiveness of the company's system of internal control. In revising the financial strategies, KNL Inc. management is concerned about the factors both inside and outside that may constrain the implementation of the strategies.

Required:

(a) Discuss the extent to which the corporate governance issues proposed by KNL Inc. management are likely to comply with generally accepted corporate governance guidance. (10 marks)

(b) Discuss the factors that might constrain the implementation of the financial strategies by KNL Inc. (10 marks)

[Total: 20 Marks]

QUESTION THREE

Bed Rock Corporation is considering acquiring SolarTech Industries Limited. Extracts of the financial Statements from the most recent financial year of the two (2) companies are as follows:

Statement of Financial Position		
	Bed Rock Corporation	SolarTech Industries
	K'million	K'million
Net Assets	**6,300**	**1,892**
Equity Capital	2,000	1,000
Income Surplus	4,300	892
Totals	**6,300**	**1,892**
Income Statement	K'million	K'million
Profit after tax	800	300
Dividend	(600)	(100)
Retained earnings	**200**	**200**

The two (2) companies retain the same proportion of profits each year and this is expected to continue into the future. Bed Rock Corporation return on investment is 16%, while that of SolarTech Industries Limited is 21%. A year after the acquisition date, Bed Rock Corporation will retain 60% of its earnings and expects to earn a return of 20% on new investment.

The dividends of both companies have been paid. The required rate of return of ordinary shareholders of Bed Rock Corporation is 12% and SolarTech Industries Limited 18%. After the acquisition, the required rate of return will become 16%.

Required:

(a) If the acquisition is to proceed immediately, calculate the;

(i) Pre-acquisition market values of both companies. (5 marks)

(ii) Maximum price Bed Rock Corporation will pay for SolarTech Industries Limited. (5 marks)

(b) As the Chief Financial Officer (CEO) of Bed Rock Corporation, you have been requested to produce an explanatory memo to the Board of Directors on the subject *Mergers and Acquisition*. Your memo should clearly outline what actions a target company might take to prevent a *hostile takeover bid*.

(5 marks)

(c) SolarTech Industries Limited is a Zambian energy company with five (5) subsidiaries in Africa. These subsidiaries have traditionally been allowed a large amount of autonomy, but the company is proposing to centralize most of the group's treasury management operations, once acquired by Bed Rock Corporation.

Required:

Acting as Chief Financial Officer (CFO) for SolarTech Industries Limited, prepare a memo suitable for distribution to the Chief Executive Officers (CEOs) of each of the subsidiaries explaining the potential benefits of treasury centralization. (5 marks)

[Total: 20 Marks]

QUESTION FOUR

MLB Ltd is a quoted entity and a major player in the agriculture industry. It has a market share in the country of approximately 40%. It is an old, well-established entity with a number of farm blocks. MLB Ltd is financed by equity 10 million K1 shares quoted at K3.2 ex div, on which a dividend of 20ngwee per share has just been paid. Dividends are growing at 8% per year. The company is also financed by debt K6million 10% debentures quoted at 105 ex int. The debentures are redeemable in six (6) years' time at a premium of 10%. The company pays corporation tax at the rate of 30% per year.

MLB Ltd had surplus cash which the Chief Financial Officer (CFO) wants to invest in the money market instruments such as the certificate of deposit (CD). The CFO has identified a

CD with a face value of K2million issued on 1 February 2022 maturing on 1 November 2022. The coupon is 8% per year.

Required:

(a) Calculate the weighted average cost of capital for MLB Ltd. (10 marks)

(b) Explain the characteristics of money markets and certificate of deposits. (7 marks)

(c) Calculate the maturity value of the CD assuming 360-day in a year. (3 marks)

[Total: 20 Marks]

QUESTION FIVE

BIBI Plc is a Zambian based manufacturer of a wide range of copper wires used in a variety of electrical products. BIBI Plc exports over 90% of its production to assembly plants owned by large multinational electronics companies all around the world. Two (2) customers (A and B) require BIBI Plc to invoice them in a single currency, regardless of the export destination. The chosen currencies are the Japanese Yen (Customer A) and the US$ (Customer B) respectively. The remaining export sales all go to European customers and are invoiced in Euros.

The variable cost and export price per unit are shown below:

Market	**Unit variable cost (K)**	**Unit export sales price**
Customer A	275	Yen 90
Customer B	480	US$ 50
Europe	625	Euro 65

Goods are supplied on 60 day credit terms.

The following receipts for export sales are due in 60 days:

Customer A	Yen 1,350,000
Customer B	US$ 400,000
Europe	Euro 357,500

The foreign exchange rates to be used by BIBI Plc in evaluating its revenue from the export sales are as follows:

Details	**Yen:ZMW**	**US$:ZMW**	**Euro:ZMW**
Spot market	5.245 - 6.055	17.620 – 17.826	18.603 – 18.813
2 months forward	5.278 - 6.143	17.550 - 17.775	18.504 – 18.784
3 months forward	5.202 – 6.100	17.440 – 17.677	18.410 – 18.721

The Managing Director of BIBI Plc believes that the foreign exchange markets are efficient and so the likelihood that BIBI Plc will make foreign exchange gains is the same as the likelihood that it will make foreign exchange losses. Furthermore, any exchange risk is already diversified across three (3) currencies, each from countries in very different economic regions of the world. The Managing Director has therefore recommended that there is no need to hedge any foreign exchange risks arising from export sales.

Required:

(a) Critically comment on the validity of the views and recommendations expressed by the Managing Director and explain how currency hedging might be beneficial to BIBI Plc. (10 marks)

(b) Calculate the Kwacha value of the contribution earned from exports to each of the customers (A, B and Europe) assuming that BIBI Plc:-

  (i) hedges the risk in the forward market; (4 marks)

  (ii) does not hedge the risk and the relevant spot exchange rates in two months' time are as follows:

    Two month spot
    Yen: ZMW 5.288 – 6.163
    US$: ZMW 17.650 – 17.750
    Euro: ZMW 18.600 – 18.680

(3 marks)

(c) Advise BIBI Plc on whether to hedge its foreign exchange exposure. (3 marks)

[Total: 20 Marks]

END OF PAPER

Formulae

Modigliani and Miller Proposition 2 (with tax)

$$k_e = k_e^i + (1 - T)(k_e^i - k_d)\frac{V_d}{V_e}$$

Two asset portfolio

$$s_p = \sqrt{w_a^2 s_a^2 + w_b^2 s_b^2 + 2w_a w_b r_{ab} s_a s_b}$$

The Capital Asset Pricing Model

$$E(r_i) = R_f + \beta_i(E(r_m) - R_f)$$

The asset beta formula

$$\beta_a = \left[\frac{V_e}{(V_e + V_d(1 - T))}\beta_e\right] + \left[\frac{V_d(1 - T)}{(V_e + V_d(1 - T))}\beta_d\right]$$

The Growth Model

$$P_o = \frac{D_o(1 + g)}{(r_e - g)}$$

Gordon's growth approximation

$$g = br_e$$

The weighted average cost of capital

$$WACC = \left[\frac{V_e}{V_e + V_d}\right]k_e + \left[\frac{V_d}{V_e + V_d}\right]k_d(1 - T)$$

The Fisher formula

$$(1 + i) = (1 + r)(1 + h)$$

Purchasing power parity and interest rate parity

$$S_1 = S_0 x \frac{(1 + h_c)}{(1 + h_b)} \qquad F_0 = S_0 x \frac{(1 + i_c)}{(1 + i_b)}$$

Modified Internal Rate of Return

$$MIRR = \left[\frac{PV_R}{PV_I}\right]^{\frac{1}{n}}\left(1 + r_e\right) - 1$$

The Black-Scholes option pricing model

$$c = P_a N(d_1) - P_e N(d_2)e^{-rt}$$

Where:

$$d_1 = \frac{\ln(P_a / P_e) + (r + 0.5s^2)t}{s\sqrt{t}}$$

$$d_2 = d_1 - s\sqrt{t}$$

The Put Call Parity relationship

$$p = c - P_a + P_e e^{-rt}$$

Present Value Table

Present value of 1 i.e. $(1 + r)^{-n}$

Where r = discount rate
n = number of periods until payment

Discount rate (r)

Periods (n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0·990	0·980	0·971	0·962	0·952	0·943	0·935	0·926	0·917	0·909	1
2	0·980	0·961	0·943	0·925	0·907	0·890	0·873	0·857	0·842	0·826	2
3	0·971	0·942	0·915	0·889	0·864	0·840	0·816	0·794	0·772	0·751	3
4	0·961	0·924	0·888	0·855	0·823	0·792	0·763	0·735	0·708	0·683	4
5	0·951	0·906	0·863	0·822	0·784	0·747	0·713	0·681	0·650	0·621	5
6	0·942	0·888	0·837	0·790	0·746	0·705	0·666	0·630	0·596	0·564	6
7	0·933	0·871	0·813	0·760	0·711	0·665	0·623	0·583	0·547	0·513	7
8	0·923	0·853	0·789	0·731	0·677	0·627	0·582	0·540	0·502	0·467	8
9	0·941	0·837	0·766	0·703	0·645	0·592	0·544	0·500	0·460	0·424	9
10	0·905	0·820	0·744	0·676	0·614	0·558	0·508	0·463	0·422	0·386	10
11	0·896	0·804	0·722	0·650	0·585	0·527	0·475	0·429	0·388	0·305	11
12	0·887	0·788	0·701	0·625	0·557	0·497	0·444	0·397	0·356	0·319	12
13	0·879	0·773	0·681	0·601	0·530	0·469	0·415	0·368	0·326	0·290	13
14	0·870	0·758	0·661	0·577	0·505	0·442	0·388	0·340	0·299	0·263	14
15	0·861	0·743	0·642	0·555	0·481	0·417	0·362	0·315	0·275	0·239	15

(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0·901	0·893	0·885	0·877	0·870	0·862	0·855	0·847	0·840	0·833	1
2	0·812	0·797	0·783	0·769	0·756	0·743	0·731	0·718	0·706	0·694	2
3	0·731	0·712	0·693	0·675	0·658	0·641	0·624	0·609	0·593	0·579	3
4	0·659	0·636	0·613	0·592	0·572	0·552	0·534	0·516	0·499	0·482	4
5	0·593	0·567	0·543	0·519	0·497	0·476	0·456	0·437	0·419	0·402	5
6	0·535	0·507	0·480	0·456	0·432	0·410	0·390	0·370	0·352	0·335	6
7	0·482	0·452	0·425	0·400	0·376	0·354	0·333	0·314	0·296	0·279	7
8	0·434	0·404	0·376	0·351	0·327	0·305	0·285	0·266	0·249	0·233	8
9	0·391	0·361	0·333	0·308	0·284	0·263	0·243	0·225	0·209	0·194	9
10	0·352	0·322	0·295	0·270	0·247	0·227	0·208	0·191	0·176	0·162	10
11	0·317	0·287	0·261	0·237	0·215	0·195	0·178	0·162	0·148	0·135	11
12	0·286	0·257	0·231	0·208	0·187	0·168	0·152	0·137	0·124	0·112	12
13	0·258	0·229	0·204	0·182	0·163	0·145	0·130	0·116	0·104	0·093	13
14	0·232	0·205	0·181	0·160	0·141	0·125	0·111	0·099	0·088	0·078	14
15	0·209	0·183	0·160	0·140	0·123	0·108	0·095	0·084	0·074	0·065	15

Annuity Table

Present value of an annuity of 1 i.e. $\frac{1 - (1 + r)^{-n}}{r}$

Where r = discount rate
n = number of periods

Discount rate (r)

Periods (n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0·990	0·980	0·971	0·962	0·952	0·943	0·935	0·926	0·917	0·909	1
2	1·970	1·942	1·913	1·886	1·859	1·833	1·808	1·783	1·759	1·736	2
3	2·941	2·884	2·829	2·775	2·723	2·673	2·624	2·577	2·531	2·487	3
4	3·902	3·808	3·717	3·630	3·546	3·465	3·387	3·312	3·240	3·170	4
5	4·853	4·713	4·580	4·452	4·329	4·212	4·100	3·993	3·890	3·791	5
6	5·795	5·601	5·417	5·242	5·076	4·917	4·767	4·623	4·486	4·355	6
7	6·728	6·472	6·230	6·002	5·786	5·582	5·389	5·206	5·033	4·868	7
8	7·652	7·325	7·020	6·733	6·463	6·210	5·971	5·747	5·535	5·335	8
9	8·566	8·162	7·786	7·435	7·108	6·802	6·515	6·247	5·995	5·759	9
10	9·471	8·983	8·530	8·111	7·722	7·360	7·024	6·710	6·418	6·145	10
11	10·37	9·787	9·253	8·760	8·306	7·887	7·499	7·139	6·805	6·495	11
12	11·26	10·58	9·954	9·385	8·863	8·384	7·943	7·536	7·161	6·814	12
13	12·13	11·35	10·63	9·986	9·394	8·853	8·358	7·904	7·487	7·103	13
14	13·00	12·11	11·30	10·56	9·899	9·295	8·745	8·244	7·786	7·367	14
15	13·87	12·85	11·94	11·12	10·38	9·712	9·108	8·559	8·061	7·606	15

(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0·901	0·893	0·885	0·877	0·870	0·862	0·855	0·847	0·840	0·833	1
2	1·713	1·690	1·668	1·647	1·626	1·605	1·585	1·566	1·547	1·528	2
3	2·444	2·402	2·361	2·322	2·283	2·246	2·210	2·174	2·140	2·106	3
4	3·102	3·037	2·974	2·914	2·855	2·798	2·743	2·690	2·639	2·589	4
5	3·696	3·605	3·517	3·433	3·352	3·274	3·199	3·127	3·058	2·991	5
6	4·231	4·111	3·998	3·889	3·784	3·685	3·589	3·498	3·410	3·326	6
7	4·712	4·564	4·423	4·288	4·160	4·039	3·922	3·812	3·706	3·605	7
8	5·146	4·968	4·799	4·639	4·487	4·344	4·207	4·078	3·954	3·837	8
9	5·537	5·328	5·132	4·946	4·772	4·607	4·451	4·303	4·163	4·031	9
10	5·889	5·650	5·426	5·216	5·019	4·833	4·659	4·494	4·339	4·192	10
11	6·207	5·938	5·687	5·453	5·234	5·029	4·836	4·656	4·486	4·327	11
12	6·492	6·194	5·918	5·660	5·421	5·197	4·988	4·793	4·611	4·439	12
13	6·750	6·424	6·122	5·842	5·583	5·342	5·118	4·910	4·715	4·533	13
14	6·982	6·628	6·302	6·002	5·724	5·468	5·229	5·008	4·802	4·611	14
15	7·191	6·811	6·462	6·142	5·847	5·575	5·324	5·092	4·876	4·675	15

Standard normal distribution table

	0·00	0·01	0·02	0·03	0·04	0·05	0·06	0·07	0·08	0·09
0·0	0·0000	0·0040	0·0080	0·0120	0·0160	0·0199	0·0239	0·0279	0·0319	0·0359
0·1	0·0398	0·0438	0·0478	0·0517	0·0557	0·0596	0·0636	0·0675	0·0714	0·0753
0·2	0·0793	0·0832	0·0871	0·0910	0·0948	0·0987	0·1026	0·1064	0·1103	0·1141
0·3	0·1179	0·1217	0·1255	0·1293	0·1331	0·1368	0·1406	0·1443	0·1480	0·1517
0·4	0·1554	0·1591	0·1628	0·1664	0·1700	0·1736	0·1772	0·1808	0·1844	0·1879
0·5	0·1915	0·1950	0·1985	0·2019	0·2054	0·2088	0·2123	0·2157	0·2190	0·2224
0·6	0·2257	0·2291	0·2324	0·2357	0·2389	0·2422	0·2454	0·2486	0·2517	0·2549
0·7	0·2580	0·2611	0·2642	0·2673	0·2704	0·2734	0·2764	0·2794	0·2823	0·2852
0·8	0·2881	0·2910	0·2939	0·2967	0·2995	0·3023	0·3051	0·3078	0·3106	0·3133
0·9	0·3159	0·3186	0·3212	0·3238	0·3264	0·3289	0·3315	0·3340	0·3365	0·3389
1·0	0·3413	0·3438	0·3461	0·3485	0·3508	0·3531	0·3554	0·3577	0·3599	0·3621
1·1	0·3643	0·3665	0·3686	0·3708	0·3729	0·3749	0·3770	0·3790	0·3810	0·3830
1·2	0·3849	0·3869	0·3888	0·3907	0·3925	0·3944	0·3962	0·3980	0·3997	0·4015
1·3	0·4032	0·4049	0·4066	0·4082	0·4099	0·4115	0·4131	0·4147	0·4162	0·4177
1·4	0·4192	0·4207	0·4222	0·4236	0·4251	0·4265	0·4279	0·4292	0·4306	0·4319
1·5	0·4332	0·4345	0·4357	0·4370	0·4382	0·4394	0·4406	0·4418	0·4429	0·4441
1·6	0·4452	0·4463	0·4474	0·4484	0·4495	0·4505	0·4515	0·4525	0·4535	0·4545
1·7	0·4554	0·4564	0·4573	0·4582	0·4591	0·4599	0·4608	0·4616	0·4625	0·4633
1·8	0·4641	0·4649	0·4656	0·4664	0·4671	0·4678	0·4686	0·4693	0·4699	0·4706
1·9	0·4713	0·4719	0·4726	0·4732	0·4738	0·4744	0·4750	0·4756	0·4761	0·4767
2·0	0·4772	0·4778	0·4783	0·4788	0·4793	0·4798	0·4803	0·4808	0·4812	0·4817
2·1	0·4821	0·4826	0·4830	0·4834	0·4838	0·4842	0·4846	0·4850	0·4854	0·4857
2·2	0·4861	0·4864	0·4868	0·4871	0·4875	0·4878	0·4881	0·4884	0·4887	0·4890
2·3	0·4893	0·4896	0·4898	0·4901	0·4904	0·4906	0·4909	0·4911	0·4913	0·4916
2·4	0·4918	0·4920	0·4922	0·4925	0·4927	0·4929	0·4931	0·4932	0·4934	0·4936
2·5	0·4938	0·4940	0·4941	0·4943	0·4945	0·4946	0·4948	0·4949	0·4951	0·4952
2·6	0·4953	0·4955	0·4956	0·4957	0·4959	0·4960	0·4961	0·4962	0·4963	0·4964
2·7	0·4965	0·4966	0·4967	0·4968	0·4969	0·4970	0·4971	0·4972	0·4973	0·4974
2·8	0·4974	0·4975	0·4976	0·4977	0·4977	0·4978	0·4979	0·4979	0·4980	0·4981
2·9	0·4981	0·4982	0·4982	0·4983	0·4984	0·4984	0·4985	0·4985	0·4986	0·4986
3·0	0·4987	0·4987	0·4987	0·4988	0·4988	0·4989	0·4989	0·4989	0·4990	0·4990

This table can be used to calculate $N(d)$, the cumulative normal distribution functions needed for the Black-Scholes model of option pricing. If $d_i > 0$, add 0·5 to the relevant number above. If $d_i < 0$, subtract the relevant number above from 0·5.

CA 3.6 ADVANCED FINANCIAL MANAGEMENT SUGGESTED SOLUTIONS

SOLUTION ONE

To: The Board of Directors of T-BAG Ltd

From: Financial Consultant

Subject: Financial Evaluation of SILA Project

Refer to the subject above.

Following our evaluation of the financial information provided regarding the proposed investment in SILA, the project provides a positive Net Present Value (NPV) of K538 million as per attached appendix. Therefore, the project should be undertaken as it is expected to increase the shareholder's wealth by K538 million.

Should you have any clarifications, please do not hesitate to contact the undersigned .

Yours Sincerely,

Financial Consultant

a) FINANCIAL EVALUATION							
YEAR	0	1	2	3	4	5	6
		K'000	K'000	K'000	K'000	K'000	K'000
Sales		403,200	451,584	505,774	566,467	634,443	-
Materials		- 152,600	- 166,334	- 181,304	- 201,248	- 223,385	-
Labour		- 127,200	- 134,832	- 142,922	- 157,214	- 172,936	-
Fixed Costs		- 265	- 281	- 298	- 316	- 335	-
Taxable Cash Flows		123,135	150,137	181,250	207,690	237,788	-
<u>Tax@20%</u>		-	- 24,627	- 30,027	- 36,250	- 41,538	- 47,558
Tax relief		0	190	143	107	80	80
Working Capital	- 300	- 27	- 29	- 32	- 43	431	-
Equipment	- 3,800	-	-	-	-	800.00	-
Net Cash Flows	- 4,100	123,108	125,671	151,333	171,504	197,560	- 47,477
<u>Discount@10%</u>	1	0.909	0.826	0.751	0.683	0.621	0.564
Present Values	- 4,100	111,905	103,804	113,651	117,137	122,685	- 26,777
NPV	**538,305**						
WORKINGS							
1.SALES		1	2	3	4	5	
		K'000	K'000	K'000	K'000	K'000	
Units		100,000	100,000	100,000	100,000	100,000	
Selling price		4.03	4.52	5.06	5.66	6.34	
Total		**403,200**	**451,584**	**505,774**	**566,467**	**634,443**	
2.MATERIALS		1	2	3	4	5	
		K'000	K'000	K'000	K'000	K'000	
Units		100,000	100,000	100,000	100,000	100,000	
Unit cost		1.53	1.66	1.81	2.01	2.23	
Total		**152,600**	**166,334**	**181,304**	**201,248**	**223,385**	
3.LABOUR		1	2	3	4	5	

		K'000	K'000	K'000	K'000	K'000	
Units		100,000	100,000	100,000	100,000	100,000	
Unit cost		1.27	1.35	1.43	1.57	1.73	
Total		**127,200**	**134,832**	**142,922**	**157,214**	**172,936**	
4.FIXED OVERHEADS		1	2	3	4	5	
		K'000	K'000	K'000	K'000	K'000	
Company		1,060	1,124	1,191	1,262	1,338	
Project SILA@25%		**265**	**281**	**298**	**316**	**335**	
5. WORKING CAPITAL	0	1	2	3	4	5	
	K'000	K'000	K'000	K'000	K'000	K'000	
COST	300	327	356	389	431	479	
Incremental	- **300**	- **27**	- **29**	- **32**	- **43**	- **47**	
6. CAPITAL ALLOWANCES							
Year	WDV (K'000)	<u>CA@25% (K'000)</u>	Tax Relief@20% (K'000)	Year Available			
1	3,800	950	190	2			
2	2,850	713	143	3			
3	2,138	534	107	4			
4	1,603	401	80	5			
5	1,202	402	80	6			
less: scrap value	800						
	402.34						

Research and development costs are sunk costs and therefore, irrelevant costs.

b) Let:

a	be the proportion of project ZE01
b	be the proportion of project ZA01
c	be the proportion of project ZB01
x	be the amount put on deposit at time 0
N	be the total NPV

Constraints

$5a + 8b + 6c + x \leq 14$

$4a - 2 + 6c \leq 5 + 1.08x$

$1 \geq a, b, c \geq 0$

$x \geq 0$

Objective

$$\text{Maximise } N = 0.976a + 2.596b + 0.862c + \left(\frac{1.08}{1.1}x - x\right)$$

c)

Lower floating rates

One reason may simply be that the floating rates available are lower than fixed rates. Managers may take no account of the greater certainty of fixed rates.

Risk appetite

The directors may be prepared to take the risk that floating rates will increase above fixed rates in order to be able to obtain a potential cost advantage from floating rates remaining below fixed rates.

Expectations that interest rates fall

Managers may choose floating rate finance because it has the strong expectation that interest rates will fall. It may not want to commit to relatively high fixed interest rates.

Term of the loan

A company may choose lower floating rates over higher floating rates in a shorter-term arrangement. Even if it is possible that the floating rates will rise, managers may feel it unlikely that there will be a large unpredictable rise.

Liquidity issues

Even if it is possible that floating rates will increase, a company may prefer to pay floating rates that are lower than fixed rates short-term because it lacks liquidity. Managers may believe that the company will be better able to afford higher floating rates in future if they expect its operating cash flows to improve.

Diversification

Managers may wish to be funded by a mix of floating rate and fixed rate debt. They may believe that the existing proportion of fixed rate debt in the company's financing structure is too high, and leaves the company exposed to a longer-term fall in floating rates.

SOLUTION TWO

a)

i) Remuneration committee

The Codes recommend that a remuneration committee with responsibility for recommending executive remuneration policy and directors' packages should be set up. However it should consist entirely of independent non-executive directors (NEDs). Independent NEDs should have no connections with the company other than fees and shareholdings.

ii) Chairman and chief executive

This provision, although it is short-term, goes against the recommendations that there should be a clear division of responsibilities at the head of a company so that one individual does not have unfettered powers of decision. Most guidance states that the roles of chairman and chief executive should not be exercised by the same individual.

iii) Directorships

This provision is not sufficiently rigorous to fulfil the general principle of the corporate governance reports that directors should devote sufficient time and attention to the company's affairs. Non-executive directors who do not hold any executive directorships may take on more than one non-executive directorship, but they should promise to have sufficient time available to discharge their responsibilities. It is very difficult to believe that if they hold as many as twenty directorships that each director will have sufficient time to devote to each company.

iv) Internal control reporting

This requirement needs to define what is meant by regularly. A number of codes require a report on internal controls to be made to shareholders at least annually. The report should be based on a review of internal control effectiveness carried out by the board at least annually, and also consideration of internal controls as a regular part of board meeting agendas. The company's guidance needs to make clear that these procedures will happen.

b)

The factors that may constrain the implementation of the financial strategies are funding, investor relations, regulatory bodies and economic factors.

i) Funding constraints

KNL Inc. may be reluctant to obtain extra funds for a variety of reasons. Being a small non-listed company, equity funding from the small group of owners will be a significant source of finance. However, owners may not have the financial resources to provide significant equity injections, and may also require the company to pay them a regular source of income. Therefore, this could be the reason, KNL Inc. is considering listing on LUSE to have access to wider capital finance.

However, once listed KNL Inc. may be constrained when they are contemplating a share issue by fears that the issue will not be fully taken up or that they will have to issue shares at a low price in order to ensure full take-up. Directors of companies of any size may be reluctant to obtain further debt finance because:

1) They fear that the company may be unable to service the debt, to make the required capital and interest payments on time
2) The tax position is such that they will be unable to use the tax shield, to obtain any tax benefit from interest payments
3) The company lacks the asset base to be able to generate additional cash if needed or provide sufficient security
4) The company wishes to maintain access to the capital markets on good terms, and hence needs a good credit rating. Smaller companies may be deterred from

obtaining debt finance by lender requirements that the directors offer personal security.

ii) Investor relations

Financial constraints are bound up with the need to keep investors satisfied. KNL Inc. will need convince investors that are investing in it that the company can generate sufficient long-term returns, and that ultimately the company will also be able to generate enough dividends to satisfy investor requirements.

iii) Business strategy

KNL Inc.'s financial strategy is not independent of its overall business strategy. There may be occasions when KNL departs from what appears to be the optimum financial strategy. It may for instance depart from its optimal capital structure to raise funds to seize a potentially valuable investment opportunity.

An entity may also suffer from a shortage of key skills or limited production capacity, both of which may limit its ability to operate to its maximum wealth generating capacity.

iv) Economic Factors

As an external factor, economic variables such as Inflation, interest rates and exchange ratesare also important constraints on financial strategy. They form part of the economic context in which the organisation finds itself. Factors like inflation and changes in interest rates and exchange rates can make it more difficult or problematic to achieve some of the organisation's goals because of the volatility and uncertainty they create.

v) Regulation

Regulatory bodies such as local or overseas governments or government regulators are a powerful external constraint on the ability of a company to create wealth for its shareholders. The government through the regulatory bodies can influence the market where KNL Inc. operates. The regulations place a considerable amount of obligation on organisations. This obligation can force the company to do things which may hinder the achievement of its strategic goals or implement the financial strategy. For instance, Legislation such as Companies Acts, Health and safety regulations, Consumer protection laws, Contract and agency laws as well as Employment law and other anti-discrimination laws impacts on entities operations.

SOLUTION THREE

1 (a) **Calculation of Market Values**

Market Value of Bed Rock Corporation:

Using the Gordon's growth model: g = rb

Where:

r = return on investment b = retention ratio g = rb, r = 0.16, b = 0.25 g = 0.16 x 0.25 = 4%
D = Dividend proposed g = Growth rate of dividend Year 1 (Future Dividend) = D0 (1 + g) = 600 (1.04) = K624million
Mv = Ex div market value of shares D0 (1 + g)/(r-g) = K624million /(0.12 – 0.04) =K7.8 billion
Total

Market Value of SolarTech Limited:

Item
g = rb, r = 0.21, b = 2/3 g = 0.21 x 2/3 = 14%
Year 1 (Future Dividend) = D0 (1 + g) = 100 (1.14) = K114million
MV = Ex div market value of shares = 114 Million/(0.18 - 0.14) = K2.850 billion
Total

a) (ii) Maximum Price of acquisition

Bed Rock Corporation earning in 1 year	K' Million
K800 million x 1.04	832
SolarTech Limited	
K300 million x 1.14	342
	1,174
	Total

Item
Dividend in 1 year K1,174 million @ 40% = K469.60m
If r = 0.2 and b = 0.6 g = 0.2 x 0.6 = 0.12
Post - Acquisition Market Value (combined entity):
MV = K469.6m/(0.16 – 0.12) = K11. 740 billion
Maximum Price (Payable for SolarTech Limited):
= K11. 740billion - K7.8 Billion = K3.94 billion
Total

(b) **Takeover Defences**

White Knight

A situation in which the target company looks for a friendly company where offer is moreappealing for the takeover bid.

Shark Repellant

This involves amending the company's memorandum and articles of association in such a way that makes the takeover difficult for the acquiring company. An example is increasing the margin of majority votes required at an Annual General meeting called to approve such a takeover.

Pac-man Defence

An anti - takeover strategy in which the target company tries to buy up the shares of theacquiring company.

Golden Parachutes

This refers to provision in the executives' employment contract that call for payment of severance pay or other compensation should they lose their job as a result of a successful takeover.

Poison-Pill

A strategy sometimes employed by target companies in a takeover bid to reduce the attractiveness of their securities/assets to the prospective acquiring firm. This is often done by enlarging the outstanding shares of a target company through a new issue of shares to its shareholders at a discount to the market price, thus making the takeover quite expensive to the prospective acquiring firm.

(c)

To: All Directors of Foreign Subsidiaries

From: Chief Financial Officer (CFO)

Subject:Benefits of Treasury Centralisation

It is proposed that the group will shortly centralize its treasury functions. Centralization of group treasury management function means that the decisions regarding currency management, short term investment and borrowing and financial risk management will be taken centrally rather than at subsidiary level.

This will permit significant efficiency, improvements and cost savings. The major benefits will be as follows:

(i) To enhance group decision making – Decisions will be taken in line with the tactical and strategic objectives of the group as a whole, rather than by individual subsidiaries which might from time to time have different objectives.

(ii) Foreign exchange risk management – a central treasury can better appreciate the total foreign exchange exposure position of the group. Netting and matching of receivables and payables in different currencies will be possible allowing transactions cost savings as only the net amounts needed, be hedged or transmitted.

(iii) Better knowledge will exist of total debt and cleared bank balances. This will facilitate interest rate hedging. Surplus cash from one subsidiary will be lent to other subsidiaries of relatively favourable rates.

(iv) High Investment Returns – Cash may be aggregated and invested at better rates and borrowing may be possible at favourable rate, including from international markets to which individual subsidiaries would not have direct access.

(v) Transfer prices will be centrally set to try to minimize the group tax bill.

(vi) A centralized treasury functions with effective internal controls, will be able to prevent the possibility of major financial losses.

(vii) A centralized treasury will be able to collect and analyze relevant economic and financial information and supply such information to the benefit of all subsidiaries.

SOLUTION FOUR

a)

$$\text{Cost of equity} = k_e = \frac{20(1.08)}{320} + 0.08 = \mathbf{14.75\%}$$

Cost of debt

		df @ 10%	*PV @ 10%*	*df @ 5%*	*PV @ 5%*
0	(105)	1	(105)	1	(105)
1 – 6	7 p.a.	4.355	30.49	5.076	35.53
6	110	0.564	62.04	0.746	82.06
			(12.47)		12.59

$$\text{Cost of debt} = \text{IRR} = 5\% + \frac{12.59}{12.59 + 12.47} \times 5\% = \mathbf{7.51\%}$$

$$\text{WACC} = 14.75\% \times \frac{32}{32+6.3} + 7.51\% \times \frac{6.3}{32+6.3} = \mathbf{13.56\%}$$

Note market values:

Equity = 10m x K3.2 = K32million
Debt = K6m x 105/100 = K6.3million

b) Money markets are the markets where short-term instruments are traded. Money markets are over the counter markets and the transactions take place between institutions rather than individual investors.
The main characteristic of money market instruments apart from their short maturities (up to 12 months) is that they normally have only one cash flow. Money market instruments can be either negotiable or non-negotiable. They can also be coupon bearing or discount instruments.
Discount instruments do not pay interest. They are issued and traded at a discount to the face value. The discount is equivalent to the interest paid to the investor and is the difference between the purchase price of the instrument and the price at maturity.

A Certificate of Deposit (CD) is a certificate of receipt for funds deposited at a bank or other financial institution for a specified term and paying interest at a specified rate. Certificates of deposit can be either negotiable or non-negotiable. The holder of a negotiable CD has two options: to hold it until maturity, receiving the interest and the principal or to sell it before maturity at the market price.

c) The time to maturity (01.02.22 to 01.11.22) is 273 days. And certificates of deposits assuming a 360-day year. So the value at maturity is K2, 000,000 x [1+ (0.08 x [273÷360]) = K2, 121,333.

SOLUTION FIVE

Part (a)

The Managing Director's observation that the efficiency of the foreign exchange markets means that BIBIPlc is equally likely to make either foreign exchange gains or losses is only partially correct. Market efficiency is dependent upon the existence of a large number of both buyers and sellers in order to create high levels of liquidity in the marketplace, and exchange rates that are determined within an environment of freely floating currencies. In practice, the level of liquidity is likely to vary between currencies, as is the amount of information freely available to the market, and the extent to which exchange rates are freely determined and not "managed" via government intervention. For major world currencies such as the Yen and the US dollar, information levels are very high and the market prices thus accurately reflect the relative demand and supply pressures. For currencies that are less commonly traded, however, supply may be controlled by government policies, and/or be less predictable, leading to more volatile pricing and an illiquid market.

The case scenario indicates that BIBIPlc is only exposed to foreign exchange risk in respect of major world currencies, the markets for which are deemed to be efficient. Consequently, for each individual currency exposure, the Managing Director is correct in suggesting that gains or losses are equally likely. However, the company is faced with simultaneous exposure to three currencies, the exchange rates of which may or may not be correlated. The data presented in the question in fact show that the Kwacha is expected to weaken against all three other currencies.

As a result it is an oversimplification to suggest that gains or losses are equally likely across the portfolio of risk because the diversification may serve to either increase or decrease the total risk exposure, depending upon the correlation between the currencies. The Managing Director's view is thus incorrect in this regard.

The fact that the Euro, Yen and US dollar are all currencies from different continents and economic regions indicates that BIBI has diversified its currency risk, but this does not necessarily imply that any remaining risk should not be hedged. The economic regions represented by these three currencies are commonly referred to as the Triad, and denote the consumer based economies of the developing world. Increasing globalisation of markets has resulted in a growing interdependence between the world's economic regions with the result that the economies of the Triad tend to follow common trends. A slowdown in spending in the USA, for example, can lead to a reduction in output in either SE Asia or Europe and vice versa. This interdependence means that it is very likely that the three currencies will move in tandem with one another, and so the diversification of risk is less than might be initially expected.

At the same time, while markets may be efficient on the basis of information available at any point, new information does continuously come to light which changes rates. Unexpected events such as September 11 can have a substantial impact on an economy in a manner that could not have been predicted, and hedging enables a company to minimise its exposure to the consequential unpredictable changes in exchange rates. In other words, even if, on average, one does not expect to make a net benefit (or avoid a net loss) by hedging, it can still be valuable as an insurance against risk. This is particularly the case for a company such as BIBI that exports over 90% of its production. We can therefore conclude that the diversification resulting from receiving export income denominated in Yen, Euros and US Dollars is insufficient justification for choosing not to hedge foreign exchange risk in BIBI.

Currency hedging may be advantageous to BIBI for a number of reasons including:

• Ensuring certainty of cash flows and profit margins on transactions invoiced in a foreign currency

• Improved planning and budgeting in view of the above

• Reduced risk in selling into any market where the currency can be bought/sold on theforward market

The disadvantage of hedging using externally purchased instruments is the associated transaction cost. It is therefore important for the Board of Directors of the company to define its attitude to risk, and decide whether the risk of any exchange rate movements that accompany a non- hedging strategy is acceptable or not. Hedging will then be used if the estimated risks are believed to be intolerably high.

Part (b)

Details	**Customer A**	**Customer B**	**Europe**
Sales units (Receipts/price)	15,000	8,000	5,500
i) With hedge			
Receipts	1,350,000	400,000	357,500
Rate	5.278	17.550	18.504
Amount (ZMW)	7,125,300	7,020,000	6,615,180
Variable costs (ZMW)	(4,125,000)	(3,840,000)	(3,437,500)
Contribution (ZMW)	3,000,300	3,180,000	3,177,680
ii) **No hedge**			
Receipts	1,350,000	400,000	357,500
Rate	5.288	17.650	18.600
Amount (ZMW)	7,138,800	7,060,000	6,649,500
Variable costs (ZMW)	(4,125,000)	(3,840,000)	(3,437,500)
Contribution (ZMW)	3,013,800	3,220,000	3,212,000
Incremental contribution if not hedged (ZMW)	13,500	40,000	34,320

Part (c)

The Kwacha is forecast to depreciate relative to the other currencies. Therefore the exchange rates seem to move favourably to BIBI Plc and therefore beneficial not to hedge. However, no hedging still leaves the company exposed to currency risk. In order to manage the long term benefits to the company, it important that all significant risks are managed, therefore these gains resulting from no hedging are short term and should not be encouraged in the long term .

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA 3.7: PUBLIC SECTOR AUDITS AND ASSURANCE

FRIDAY 16 SEPTEMBER 2022

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</u> - COMPULSORY

You are a Director in the specialised audits and consultancy directorate of the Office of the Auditor General (OAG). The Director of Finance for the Ministry of Agriculture has directed the Auditor-General (AG) to conduct a forensic investigation regarding suspected fraudulent operations in a rural satellite depot owned by Food Reserve Agency (FRA). This was reported by a whistle-blower.

The FRA is a Government entity which is under the Ministry of Agriculture, although oversight regarding its operations is the responsibility of the Board of Directors appointed by the Minister of Agriculture. The FRA is mandated to ensure food security in the country and provide a ready market especially for small-scale farmers. Most of the small-scale farmers benefit from the Farmer Input Support Programme (FISP) run by the Government, through the Ministry of Agriculture. The Director of Finance for the Ministry of Agriculture has informed the AG that the Minister of Agriculture is concerned about such allegations and wants the matter investigated thoroughly before it becomes public knowledge. The AG and the Director of Finance know each other socially and regularly play golf together. The AG is a senior member of the ruling party and takes such directives very seriously. He has therefore asked you to look into the matter further. You have held a preliminary discussion with the Finance Director for the Ministry of Agriculture.

The alleged fraud involves fraudulent disbursements to a number of small-scale farmers in respect of maize supplies. The FRA has put in place a system for the satellite depots which operates as follows:

1. Each satellite depot must have a Supervisor, a Cashier and three (3) Loaders.
2. When a farmer brings his/her maize, the Supervisor must test the maize for moisture content and grade it accordingly.
3. If the maize passes the test, it is repacked by the Loaders in fifty (50) kg bags provided by the FRA and must be weighed.
4. The Loaders must physically count the number of bags and give the details to the Supervisor.
5. Based on the details provided by the Loaders, the Supervisor must raise a pre-numbered printed Goods Received Note (GRN).
6. The supplier and the Cashier are given copies of the GRN.
7. The Cashier records the GRN on a spread sheet on his/her laptop.
8. At the end of the week, a schedule of the GRNs (with GRN copies attached) for the week must be sent to the FRA Head Office.
9. Within two (2) weeks, Head Office finance staff must process payments for the suppliers and send the cash to the Cashiers for onward disbursement to the farmers who supplied the maize.
10. The maize supplies are only moved to a central warehouse after verification by the FRA internal auditors.

The whistle-blower who is a Cashier at the rural satellite depot in question reported that the Supervisor and the local political leadership were raising fake GRNs. The Supervisor is a relative to the area Member of Parliament (MP). The internal auditors are yet to verify the maize supplies in question. You have requested the AG to consider outsourcing some technical aspects of the assignment as you strongly think the internally assembled team lack certain skills and experience.

The FRA is concerned that the increased number of GRNs coming from the rural satellite depot means that senior management has to approve realignment of some of the budget lines in order to fund the logistical support to the rural satellite depot for the supposedly increased maize supplies. The Cashier also reported that the Supervisor and the Loaders live beyond their means and have acquired houses using funds reasonably suspected to be proceeds of money laundering. The Finance Director for Ministry of Agriculture hinted that the Government is considering replacing all manual systems with electronic systems in order to minimise the opportunity for fraudulent activities. However, the concern over cyber-crime is slowing the process. The Finance Director for the Ministry of Agriculture has offered to accommodate the investigation team at an expensive executive lodge to ensure maximum safety and motivate the investigating team.

Required:

(a) Explain the importance of cyber-security in the public sector. (6 marks)

(b) Explain whether the reported alleged fraudulent activities in the rural satellite depot could be considered as money laundering. (5 marks)

(c) Identify and explain six (6) ethical threats and recommend any appropriate safeguards for each ethical threat. (15 marks)

(d) Explain what is meant by forensic investigation and give three (3) examples of misappropriation of assets, apart from fraudulent disbursements, which are a regular occurrence in the public sector. (5 marks)

(e) Describe six (6) procedures that should be performed in the forensic investigation into the fraudulent disbursements to farmers in the rural satellite depot. (9 marks)

[Total: 40 Marks]

SECTION B

There are four (4) questions in this section.

Attempt any three (3) questions.

<u>QUESTION TWO</u>

You are an Audit Manager responsible for the financial statement audit for Kimberly University, a large university owned by the Republic of Chimwemwe. Kimberly University uses accrual basis International Public Sector Accounting Standards (IPSASs).The audit is for the financial year ended 31 March 2022 and field work has been completed. You are currently reviewing the proposed draft audit report.

The Audit Senior has included the following Key Audit Matter (KAM) section:

"**Key Audit Matters**

Depreciation of Information Technology (IT) equipment

Under IPSAS AS 17 *Property, Plant and Equipment,* the University is required to depreciate non-current assets over the estimated economic useful life. The figure for depreciation was significant to our audit. In addition, management's assessment process of economic useful life is complex and highly judgmental and is based on assumptions, specifically the expected future developments in IT and market conditions.

Our audit procedures included, among others, using an IT expert to assist us in evaluating the assumptions and methodologies used by the university, particularly those relating to the forecasted developments in IT. We also focused on the adequacy of the university's disclosures about those assumptions to which the outcome of the change in estimated economic useful is most sensitive, that is, those that have the most significant effect on the determination of the recoverable amount of non-current assets.

The university's disclosures about depreciation are included in Note 2, which specifically explains the rationale for the estimated economic useful life."

Required:

(a) State the main International Standards of Supreme Audit Institutions (ISSAIs) which give detailed guidance on auditor's reports in a financial statement audit. (4 marks)

(b) (i) Explain the meaning and use of Emphasis of Matter paragraph, Other matter paragraph and Key Audit Matters paragraph (KAM). (6 marks)

(ii) Explain the relationship between Emphasis of Matter paragraph, other matter paragraph and Key Audit Matters paragraph (KAM). (2 marks)

(c) Evaluate the proposed Key Audit Matters (KAM) paragraph given in the scenario and state whether it is appropriate to include a KAM section in the auditor's report for Kimberly University. (8 marks)

[Total: 20 Marks]

QUESTION THREE

The Supreme Audit Institution (SAI) in the Republic of Undiana was established last year. You work for the Office of the Auditor General (OAG) in the Republic of Zambia. You have been seconded to the SAI in the Republic of Undiana. The Head of the SAI requested you to assist the SAI in the development of systems for transparency and accountability within the SAI and draft an appropriate audit opinion paragraph for the financial statement audit for Undiana Fisheries Ltd which has just been completed.

You have established the following:

1. The SAI made public its mandate, responsibilities, mission and strategy. However, most of the politicians think this is irrelevant and can create unnecessary tension in the country.
2. The constitution of the Republic of Undiana does not allow the SAI to report publicly on the results of its audits and conclusions, with regard to overall government activities. Most of the issues are considered sensitive. However, the public wants the report to be passed on to appropriate law enforcement agencies for further investigation or prosecution.
3. The SAI performs its duties under a legal framework which covers a number of areas, including conditions regarding the appointment or dismissal of the head of the SAI.
4. The SAI makes use of external and independent advice to enhance the quality and credibility of its work. All external and independent consultants are engaged using the public procurement procedures and are required to adhere to ethical requirements for the SAI.

Undiana Fisheries Ltd is a Government owned entity. A misstatement of K1.2 million was discovered in the computation of the figure for employee benefits recognised in the financial statements for the year ended 31 March 2022. This was due to the omission of post-employment benefits contrary to the provisions of IPSAS 25 *Employee Benefits.* The amount is considered material and pervasive. Management has refused to make the required adjustment.

Required:

(a) Using an appropriate ISSAI, explain the principles for SAIs about the need to be transparent and accountable. (10 marks)

(b) Evaluate the SAI's adherence to the principles of transparency. (4 marks)

(c) Using the information in the scenario, draft an appropriate audit opinion paragraph and state its position in the auditor's report. (6 marks)

[Total: 20 Marks]

QUESTION FOUR

(a) You work for a consultancy firm, Control Solutions, as a consultant. Your firm has won a contract to offer advisory services to a North African country intending to establish a Supreme Audit Institution (SAI).

You have been assigned to carry out this assignment and the objective is that the establishment of the Supreme Audit Institution (SAI) should follow the concepts and principles in the Lima and Mexico Declarations. Both the Lima and Mexico declarations contain concepts and principles related to the independence of the Supreme Audit Institution (SAI) and the staff who work for it.

Required:

(i) Explain the purpose of the concepts contained in the Lima Declaration.

(2 marks)

(ii) Other than those concepts related to independence, explain four (4) concepts of the Lima Declaration. (6 marks)

(b) You work for the Office of the Auditor General (OAG) as a Senior Auditor. You have been assigned to carry out the audit of the financial statements of Medical Stores for the year ended 31 September 2021.

Accounts receivables are a material figure in the financial statements of Medical Stores. The bulk of the receivables comprise sales on credit to various government owned medical institutions around the country.

In view of the old outstanding debts, the Principal Auditor has suggested that you send confirmation requests to selected receivables because this evidence will be from third parties and hence more reliable. He specifically wishes you to use the positive form of confirmation as it is generally preferable and more reliable.

Your request to confirm receivables balances has been denied by the management of Medical Stores unless you use the negative form of confirmation.

Required:

(i) Explain the meaning of positive and negative confirmation. (3 marks)

(ii) Explain four (4) conditions that are necessary for the use of the negative form of confirmation. (6 marks)

(iii) Discuss the action that you will take in view of refusal by management of Medical Stores to send out confirmation letters. (3 marks)

[Total: 20 Marks]

QUESTION FIVE

In the last twenty (20) years, increased use of Information Technology (IT) has changed the way organizations are run. It is now easy and faster to gather data and information and also to manipulate these vast amounts of data for better decision making. The internet has made connectivity of organizations much easier and reduced the level of physical interaction.

The Zambian government has over the years computerized most of its activities. With the support of the National Health Services of the United States of America, the Zambian government embarked on a computerization of health delivery services. A grant of US$5 million was received for the introduction of computer systems at the University Teaching Hospital. Among the systems computerized was that of patient records and management. This was achieved through the acquisition and installation of a patient management system hardware and software.

Under the supervision of the Ministry of Health, hardware was acquired from a leading hardware supplier in China. There are various suppliers of similar hardware around the world. Software was acquired from a local leading software supplier.

The objective of acquiring a patient management system for the University Teaching Hospital is to enable the hospital deliver efficient patient services and to reduce the time it takes to attend to patients. All patient information will be maintained in the system and once the system is replicated at all public hospitals patient, information will be consolidated regardless of where the service was obtained.

You work for the Office of the Auditor General (OAG) and you have been assigned to carry out the first Information Technology (IT) audit of the system installed at the University Teaching Hospital. You plan to carry out a Performance audit and an Information Technology audit at the same time.

Required:

(a) Explain the benefits of carrying out performance and Information Technology (IT) audits at the same time. (4 marks)

(b) Discuss the objective of the performance audit of the Information System (IS) of the University Teaching Hospital. (6 marks)

(c) Explain the meaning of big data and data analytics in Information Technology (IT).

(4 marks)

(d) Discuss four (4) benefits of big data to the health delivery service of the government.

(6 marks)

[Total: 20 Marks]

END OF PAPER

CA 3.7 PUBLIC SECTOR AUDITS AND ASSURANCE SUGGESTED SOLUTIONS

SOLUTION ONE

(a) Importance of cyber-security in the public sector:

Cyber-security means the protection of computer systems and networks from information disclosure, theft of or damage to their hardware, software, or electronic data, as well as from the disruption or misdirection of the services they provide.

The public sector has computerised a number of processes to enhance service delivery. This computerisation has exposed the computer systems and networks in the public sector to the risks of cyber-crime. Before the advent of the internet, computer systems typically had very limited connectivity outside the organisation. Therefore, the emphasis of controls related to security was to restrict access both in terms of controlling access to the physical location housing IT facilities and controlling who was able to access the system through system terminals.

The huge changes in communications technologies brought about by the internet have led to computer systems no longer being closed systems. The public sector now have their IT systems connected to the internet enabling direct interaction with suppliers, service providers and customers. However, the enormous benefits of this increase in connectivity, has come at the price of security.

The largest security threat to the public sector’s computer system typically now comes from unauthorized access via the internet. Limiting this risk has become one of the key objectives of the public sector’s IT controls. Such unauthorised access can result in a range of malicious activities which collectively are termed cyber-crime. Hence, cyber-security is very important so as to avoid cyber-crime.

(b) Money laundering:

The Prohibition and Prevention of Money Laundering Act 2001 defines the crime of money laundering as:

- Engaging directly or indirectly, in a business transaction that involves property acquired with proceeds of crime
- Receiving, processing, concealing, disguising, disposing of or bringing into Zambia, any property derived or realised directly or indirectly from illegal activity; or
- The retention or acquisition of property knowing that the property is derived or realised directly or indirectly from illegal activity

It is important to note any fraudulent activity is considered to be a crime under the aforementioned Act.

The following activities at the satellite depot are acts that amount to money laundering resulting in the Food Reserve Agency losing significant amounts of money through making payments for maize not received.

The raising of fake Goods Received Notes(GRNs) by the cashier in collusion with the local political leadership is fraudulent financial reporting meant to benefit the perpetrators using funds meant for the FRA. This act is covered in the definition of money laundering under the relevant act.

The alleged living beyond their means of the supervisor and the loaders to an extent that they have acquired properties not commensurate with their income is money laundering under the act. This is covered under the provision of retention or acquisition of property suspected to be from proceeds of crime.

(c) Ethical and professional issues and safeguards

Ethical and professional issues	Explanations	Safeguards
(1) Directive by the Director of Finance for the Ministry of Agriculture.	To maintain independence, the Auditor-General (AG) is not supposed to be directed by anyone. The investigation and resulting report could be grossly misunderstood. The AG should be seen to acting in public interest.	There should be elaborate quality control reviews on the assignment. This must be done by an independent senior staff.
(2) The AG and the Director of Finance know each other socially and regularly play golf together.	This relationship between the two could create both self-interest and familiarity threats. The AG would want to "impress" the Director of Finance at all cost so as to maintain the relationship. Hence there is a strong possibility of the AG's independence being compromised.	The AG must declare interest and avoid any action which could be interpreted as influencing the outcome of the investigation. This personal relationship should be reviewed in line with OAG's ethical policies.
(3) The AG is a senior member of the ruling party.	This can create an intimidation threat. The AG may be under political pressure to protect the ruling party's interest. This will impair independence. The investigation could be seen as a tool meant to "fix" political opponents or protect members.	The AG must not be involved in this investigation. An independent senior member of staff must be overall-in-charge.
(4) The Supervisor is a relative to the area Member of Parliament (MP).	This can create an intimidation threat as the area Member of Parliament would want to protect the Supervisor at all costs. This could impair the investigation team's independence.	Appoint a senior independent experienced member of the OAG to head the investigations team.
(5) Outsourcing some technical aspects of the assignment.	The external party's independence may be compromised. In addition their ethical behaviour could highly questionable.	The external party's independence must be evaluated using the OAG's ethical code.
(6) The Finance Director for the Ministry of Agriculture has offered to accommodate the investigation team.	This will create a self-interest threat and may undermine the OAG's reputation, especially if it became public knowledge. The independence of the investigation team will	The offer should be politely refused and the OAG must arrange the accommodation if necessary.

	seriously be brought into question.	

(d) Forensic investigation and examples of misappropriation of assets, apart from fraudulent disbursements:

Forensic investigation is gathering and analysis of all crime related physical evidence in order to come to a conclusion about a suspect. Forensic investigation is a somewhat broader term compared to forensic audit. It is usually carried out for criminal cases. These can involve fraud or money laundering. The stages in a forensic investigation are similar to an audit of financial statements as they both involve planning, collection of evidence, review and the production of a final report.

Examples of misappropriation of assets, apart from fraudulent disbursements include:

- Cash theft
- Inventory fraud
- Misuse of assets

(e) Procedures that should be performed in the forensic investigation into the fraudulent disbursements to farmers in the rural satellite depot

1. Ascertain and document the system put in place by the FRA for the satellite depots.
2. Carry out a walkthrough test to confirm the accuracy of the documented system.
3. Evaluate the internal controls put in place in order to determine their effectiveness.
4. Obtain copies of all schedules of the GRNs and GRNs sent to the FRA head office and calculate the total quantity.
5. Visit the rural satellite depot in question and carry out physical inventory count of the maize.
6. Compare the total as per GRNs and the physical inventory count and request the Supervisor to explain in writing the reasons for any difference.
7. Pretend to be a maize supplier and give the Supervisor a token and request him to inflate the quantities of maize supplied. This must be recorded.
8. Conduct information-seeking interviews with the selected suppliers, in order to build up a more complete understanding of how and why fraudulent disbursements occurred.
9. Conduct admission-seeking interviews with the Supervisor, local political leadership and Loaders in order to acquire a confession. It is important to ensure that this interview is delayed until there is enough evidence to extract confession since this will form a key part of evidence to be presented in court.

SOLUTION TWO

(a) Main International Standards of Supreme Audit Institutions (ISSAIs)

- **ISSAI 1700** *Forming an opinion and reporting on financial statements*
- **ISSAI 1701** *Communicating key audit matters in the independent auditor's report*
- **ISSAI 1705** *Modifications to the opinion in the independent auditor's report and*
- **ISSAI 1706** *Emphasis of matter paragraph and other matter paragraph in the independent auditor's report*

(b) (i) Emphasis of Matter (EOM) paragraph, Other Matter (OM) paragraph and Key Audit Matters (KAM) paragraphs:

Key audit matters (KAMs) are those matters that, in the auditor's professional judgement, were of most significance in the audit of the financial statements of the current period. KAMs are selected from matters communicated with those charged with governance.

Emphasis of matter paragraph (EOM) is a paragraph included in the auditor's report that refers to matter appropriately presented or disclosed in the financial statements that, in the auditor's judgement, is of such importance that it is fundamental to users' understanding of the financial statements.

Other matter paragraph (OM) is a paragraph included in the auditor's report that refers to a matter other than those presented or disclosed in the financial statements that, in the auditor's judgement, is relevant to users' understanding of the audit, the auditor's responsibilities or the auditor's report.

(ii) The relationship could be summarised as follows:

- KAM must refer to issues present in the financial statements, whereas the other matter paragraph does not. Hence, there is no overlap.
- There is some degree of overlap between EOM items and KAM, and the auditor should use judgement to decide how matters should be reported. The difference is that KAM do not modify the report, while EOM paragraph does modify the audit report. Where there is a KAM section, the EOM paragraph may be positioned either before or after the KAM, depending on the significance of the matter discussed.

(c) **Evaluation of the proposed key audit matter (KAM) paragraph given in the scenario and advice:**

The KAM section should include an introductory paragraph explaining the concept of KAM in order for users of the auditor's report to understand its importance and significance. The introduction should also clearly state that the auditor is not forming a separate opinion on the items identified as KAM. This is missing in the proposed KAM.

Estimated economic useful life is an area of significant audit judgement with a high risk of material misstatement; hence inclusion as KAM is appropriate although the disclosure should explain the factors which led the auditor to determine the matter was a KAM. It would also aid user understanding further if the auditor's report quantified the size and significance of the issue and explained its impact on the nature and extent of the audit effort.

The auditor should **describe how the KAM was addressed in the audit**, and although this is a matter for auditor judgement, the auditor may describe aspects of the auditor's response or approach, provide a brief overview of the procedure performed and an indication of the outcome of the procedures. Based on the proposed wording, the users of the auditor's report would have a clear indication of how the auditor has gathered evidence over this key area.

KAMs should be part of every listed company auditor's report, and may also be applied on a voluntary basis for other audits. However, given that the public sector is a significant participant of any economy and is responsible for maintaining and providing important functions that affect citizens, the Practice Note for ISSAI 1701 suggests that public sector auditors should also consider reporting KAM for auditees other than listed entities. Hence, the inclusion of a KAM section for Kimberly University, a large university owned by the Republic of Chimwemwe, could be considered appropriate.

SOLUTION THREE

(a) Principles for SAIs about their need to be transparent and accountable

ISSAI 20 sets out the following nine (9) principles for SAIs about their need to be transparent and accountable:

1. A SAI should perform its duties under a legal framework that provides for transparency and accountability. Legislation should cover a number of areas, including conditions regarding the appointment or dismissal of the head of the SAI.
2. A SAI should make public its mandate, responsibilities, mission and strategy.
3. A SAI should adopt standards and methods that are objective and transparent. Among other things, it should communicate with an audited entity about the criteria on which it will base its audit findings, and keep the audited entity informed about its audit objectives, methods and findings.
4. A SAI should apply high standards of integrity and ethics for its staff. Ethics rules or codes should be consistent with ISSAI 30 (the INTOSAI Code of Ethics)
5. A SAI should ensure that the principles of transparency and accountability are not compromised when it outsources some of its work, to an external entity.
6. SAIs should manage their operations economically, efficiently and effectively, and should report publicly on this matter.
7. A SAI should report publicly on the results of its audits and conclusions, with regard to overall government activities.
8. A SAI should communicate on its activities and audit results through the media, websites, and other means.
9. A SAI should make use of external and independent advice to enhance the quality and credibility of its work.

(b) Evaluation of the SAI's adherence to the principles of transparency

1. The SAI has made public its mandate, responsibilities, mission and strategy. A SAI should make public its mandate, responsibilities, mission and strategy. Hence, the SAI is in adherence to the principle.
2. The constitution of the Republic of Undiana does not allow the SAI to report publicly on the results of its audits and conclusions, with regard to overall government activities. A SAI should adopt standards and methods that are objective and transparent. Among other things, it should communicate with an audited entity about the criteria on which it will base its audit findings, and keep the audited entity informed about its audit objectives, methods and findings. Hence, the SAI is not in adherence to the principle.

(c) Draft audit opinion paragraph

"Adverse Opinion

We have audited the financial statements of Undiana Fisheries Ltd, which comprise the statement of financial position as at 31 December 2021, and the statement of comprehensive income, statement of changes in equity and statement of cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies.

In our opinion, because of the significance of the matter discussed in the Basis for Adverse Opinion section of our report, the accompanying financial statements do not give a true and fair view of financial position of the company as at March 31, 2022, and of its financial performance and its cash flows for the year then ended in accordance with International Public Sector Accounting Standards (IPSASs)."

The opinion paragraph should be positioned at the start of the auditor's report.

SOLUTION FOUR

(a)(i) The purpose of the concepts contained in the Lima Declaration:

The Lima declaration developed by the International Organization for Supreme Audit Institution (INTOSAI) contained concepts which should exist in any Supreme Audit Institution wishing to carry out effective public sector audits.

It is used as a benchmark against which countries wishing to set up Supreme Audit Institutions (SAI) can get concepts they can use to set up SAIs in their jurisdictions.

(ii) Concepts of the Lima Declaration:

1. **Distinction of internal & external audits:**
   There should be a clear distinction between the internal audit and the external audit. Government institutions should have internal audit department which are part of the organization. The SAI is the external auditor of these publicly owned enterprises and can examine the effectiveness of the internal audit function.

2. **Power of investigation:**
   The SAI should have power to carry out investigations that it deems necessary. In this regard it should have access to records and documents that it requires to carry out its mandate of investigations as it deems necessary.
3. **Enforcement of SAI findings:**
   The SAI should have power to follow up the implementation of the recommendations made with audited enterprises.

4. **Audit staff:**
   The SAI should have staff with necessary qualifications and moral integrity to be able to carry out their work.

5. **International exchange of experiences:**
   The SAI should be agreeable to exchange of ideas and experiences on public sector audits with other INTOSAI members.

6. **Reporting to Parliament and the general public:**
   The SAI should have constitutional power to report annually to parliament and the public or any other body established by statute.

7. **Method of reporting:**
   In its reports, the SAI should include the responses of the audited entities in which they express their views on the audit findings.

(b) (i) Positive and negative forms of confirmation:

Positive confirmation is where the confirming party is required to respond to the auditor whether or not they agree with the balance being confirmed.

In a negative confirmation, the confirming party is only required to respond to the auditor if they do not agree with the balance being confirmed.

(ii) Conditions that should be present for negative confirmation:

1. When the auditor assesses risk of material misstatements of receivables as low.
2. Sufficient appropriate evidence on the operating effectiveness of relevant controls has been obtained.
3. The auditor has no knowledge of any reasons why the customers would disregard the confirmation requests.
4. The auditor expects a very low exception rates between the confirmed balance and the balances being confirmed.

(iii) Action in view of refusal by management to send confirmations:

The following should be done by the public sector auditor in view of the refusal by the management of Medical Stores to allow the auditors confirm balances with its customers.

1. The auditor should communicate the refusal to those charged with governance of Medical Stores.
2. The auditors should ask management the reason for refusal of sending out confirmation letters.
3. The auditor should reconsider the integrity of the management of Medial Stores and re-evaluate the reliability of the other evidence obtained.
4. Evaluate the implications of the refusal on the assessment of risk of material misstatement, the risk of fraud, and on the nature, timing and extent of other audit procedures.
5. Depending on the materiality of the amounts involved consider the impact of refusal by management on the audit opinion.

SOLUTION FIVE

(a) Benefit of carrying out a performance audit with an IT audit:

Performance and IT audits can be done separately or indeed as in this case could be performed at the same time.

By performing these audits at the same time, it is convenient and cheaper for the Supreme Audit Institution (SAI) in that there will be one visit instead of two if the two audits are performed separately.

Performing the two audits at the same time is convenient to the entity being audited. This means that the institution will spend less time dealing with the audits and concentrate in delivery service.

(b) The objective of performance audit of IT System:

Before conducting a performance audit, the public sector auditor is required to establish the audit objective. The audit objective must be related to any of the three principles of economy, efficient and effectiveness as follows:

Economy – The objective with regards to economy aims at establishing whether the best price was paid for the inputs without compromising quality.

Efficiency – With regards to efficiency, the objective is to establish whether or not the inputs have been utilized economically and is a measure of the output against the inputs. The question would be whether the same output would have been achieved with lesser resources.

Effectiveness – The objective is to measure the achievement of the intended objective of the program or system. A project or program will have achieved effectiveness if it achieves the objective for which it is carried out.

(c) Meaning of big data and data analytics:

Big data is the availability of a lot of data and information to the general public. This has come about because of increased use of information technology and the internet. There is a high level of connectivity amongst organizations than has ever been. This mass of data and information is the big data.

Data analysis are in-depth queries or searches into large files of data in order to identify anomalous individual items. Items that are identified as unusual can then be scrutinised in more detail manually.

(d) Benefits of big data to health delivery service:

There is a lot of big data available regarding health delivery services available. Once all the public health service providers have the necessary installation of the relevant Information Technology (IT) there are many benefits that accrue to the government and the individual institutions as follows:

(i) There will be significant improvement in service delivery to the satisfaction of the citizens who use the facilities.
(ii) Loss of patient records will reduce significantly because all medical record will be held electronically.
(iii) It will be easy to manipulate the information and make correct decisions in terms of the procurement of medical supplies.
(iv) It facilitates sharing of vital statistics regarding health issues and health delivery services.
(v) It will make planning by the government and the relevant ministry easier in terms of procurement of drugs and areas where more attention should be paid through analysis of diseases profiles.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA 3.8: PUBLIC SECTOR FINANCIAL MANAGEMENT

FRIDAY 16 SEPTEMBER 2022

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

A government recently qualified for an International Monetary Fund (IMF) bailout following successful negotiations. A number of Conditions, were agreed with the IMF among them removal of subsidies and budget reliability before the funds are released to the Government. However, most stakeholders strongly feel that these conditions are too harsh for the country and may make the lives of most citizens unbearable.

Below is an extract of the budget releases to the Ministries for the first quarter that will form the basis of the country receiving the first disbursement.

S/N	NAME OF MINISTRY	FIRST QUARTER BUDGET ZMW	FIRST QUARTER RELEASES ZMW
1.	Ministry of Defence	2,000,000	500,000
2.	Ministry of Health	1,500,000	1,000,000
3.	Ministry of Education	3,000,000	1,200,000
4.	Ministry of Agriculture	5,500,000	1,320,000
5.	Ministry of Youth and Sport	560,000	178,000

According to the indicators agreed upon with the IMF, the following are the interpretations.

(i) Budget outturn of 25% and below indicates very good budget reliability and is scored as A

(ii) Budget outturn of 26% - 35% is treated as good budget reliability and is scored as B

(iii) Budget outturn of 36% - 45% is treated as average budget reliability and is scored as C

(iv) Budget outturn of 46% and above is poor budget reliability and is scored as D

Required:

(a) Prepare budget performance for the line Ministries indicating the out turn percentages for the first quarter and comment on the scores. (6 marks)

(b) Advise Government on how they can improve on budget reliability. (4 marks)

(c) With reference to Public Sector Financial Management Framework explain the two (2) main frameworks that provides an understanding of what constitutes public sector. (10 marks)

(d) Explain ten (10) functional categories of the expenditure structure of the Zambian Budget. (20 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt any THREE (3) questions.

QUESTION TWO

The government is considering constructing a road at an expected value of K200 million in the eastern rural part of Zambia. There is serious doubt as to whether the road will generate any economic benefits to the country. The risk analysis has highlighted that there is uncertainty around these benefits being realised. There are four (4) possible outcomes that are now considered possible, with the following NPV and probabilities:

Outcome	Low	Medium	High	Highest
NPV (K'm)	151	252	353	455
Probability	0.2	0.4	0.3	0.1

Some government officials are of the view that the source of funds for the road construction should be solely from foreign grants, programme and project loans. All of the programme and project loans should to be acquired from a foreign bank in Europe.

Required

(a) Evaluate the financial viability of the road construction by the government using scenario analysis based on the financial information provided above. (10 marks)

(b) Differentiate foreign project grants, programme and project loans as sources of foreign financing. (5 marks)

(c) Explain the constraints on relying entirely on foreign borrowing as a major source of Government financing. (5 marks)

[Total: 20 Marks]

QUESTION THREE

RTD Municipal council is considering embarking on a capital project involving the rehabilitation of a football stadium owned by the council.

RTD is expected to spend K250m on the rehabilitation works. Sixty percent of this amount is expected to be paid before commencement of the works and the balance will be paid when the works are completed.

During a recent council meeting held at the council civic center, management explained that the project is worth it because it is expected to increase revenue to the council once completed. This will be realized through the gate takings during football matches. In his submission to the councilors, the council town clerk explained that the council has been subcontracting most of its service provision to private companies. RTD provides garbage collection services, street lighting, fire services among other things to the district where it is located. He explained that once the stadium is complete the council will be able to procure its own equipment to be used for service provision rather than subcontracting.

After the repairs are completed the council will no longer subcontract the works related to grading of roads and garbage collection in the district. The cost of service provision is therefore expected to reduce by a good margin.

RTD council receives a grant from central government. 20% of the grant is expected to be spent on capital expenditure while the balance is for recurrent expenditure.

The council is now considering whether to lease the stadium to a private company or to enter in to a concession arrangement after the rehabilitation works are complete.

Required:

(a) Explain the key sources of financing for RTD municipal council and external revenue which it can utilize for the rehabilitation of the stadium. (5 marks)

(b) Discuss the concept of market failure and how government can respond to correct it. (15 marks)

[Total: 20 Marks]

QUESTION FOUR

You are employed in a Government owned corporate entity. You have been nominated to present a paper by the National Institute of Accountants (NOA) at a workshop of Public Sector Employees hosted by the NOA.

The workshop is sponsored by the European Union and it is aimed at strengthening accountability of public funds in the public sector. Among the invited guests are the principal officers in some Government Ministries, Departments

Among the areas you have been asked to address in your presentation are

(1) Accountability for public funds in the public sector,
(2) Public sector finance management reforms,
(3) Public expenditure Trucking Survey (PETS),
(4) SIGMA principles of public administration.
(5) Conducting a PETS assessment.

The purpose of the workshop is to promote the accountability of public funds in the public sector. It is targeted at all public service employees in central government, local government and parastatal bodies.

You have prepared the following notes as guidelines for making your presentation at the workshop:

1. Need for PETS as tools for public financial accountability.
2. Need for SIGMA principles in public sector entities.
3. Application of PETS and SIGMA as public finance management measurement frameworks

Required:

(a) Explain the circumstances which led to the introduction of Public Expenditure Trucking Surveys (PETS). (4 marks)

(b) Explain the six (6) stages involved in PETS implementation. (12 marks)

(c) Explain how SIGMA principles can be used to provide a comprehensive assessment of public financial management (4 marks)

[Total: 20 Marks]

QUESTION FIVE

ZASKO Ltd is a state owned enterprise involved in the energy sector. The company has available funds for investment amounting to K211 million. ZASKO Ltd has an option to invest in either equity stake of a start-up business that has discovered the technology to manufacture COVID-19 vaccines or expand its current business operations. The other option is to keep the funds in its bank account for precautionary purposes. The Board of Directors of ZASKO Ltd believes that the returns which it will earn mainly depend on how quickly the economy will grow following the slowdown of COVID-19 Pandemic infections which had an impact on the fiscal risk. The table below shows the expected return of each investment.

Option	Recession	Low Growth	High Growth	Expected Value
Option A: Keep Funds in Bank	4.98%	4.98%	4.98%	4.98%
Option B: Expand Current Operations	0.007%	6.66%	10.67%	8.5%
Option C: Start-Up Business	-4.7%	1.95%	21.52%	5.5%

Required

(a) Explain the classification of the Board's attitudes to risk with associated range of models. (8 marks)

(b) Using the information in the table above assess how ZASKO Ltd board might decide on the best option for an investment. (6 marks)

(c) Explain the meaning of fiscal risk and the key reports that the IMF recommends governments to produce on the risks to their fiscal prospects. (6 marks)

[Total: 20 Marks]

END OF PAPER

Formulae

Modigliani and Miller Proposition 2 (with tax)

$$k_e = k_e^i + (1 - T)(k_e^i - k_d)\frac{V_d}{V_e}$$

Two asset portfolio

$$s_p = \sqrt{w_a^2 s_a^2 + w_b^2 s_b^2 + 2w_a w_b r_{ab} s_a s_b}$$

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.

CA3.8 PUBLIC SECTOR FINANCIAL MANAGEMENT SUGGESTED SOLUTIONS

SOLUTION ONE

a) Prepare budget performance for the line ministries indicating the out turn percentages for the first quarter and comment on the scores.

NAME OF MINISTRY	First Quarter Budget	Actual Releases	Out Turn	% Out Turn	Score	Marks
Ministry of Defence	2,000,000	500,000	1,500,000	75%	D	1
Ministry of Health	1,500,000	1,000,000	500,000	33%	B	1
Ministry of Education	3,000,000	1,200,000	1,800,000	60%	D	1
Ministry of Agriculture	5,500,000	1,320,000	4,180,000	76%	D	1
Ministry of Youth and Sport	560,000	178,000	382,000	68%	D	1
						5

Comment: Government needs to improve in terms of budget reliability in the Ministry of Defence , Ministry of Education , Ministry of Agriculture and Ministry of Youth and Sport.

No.	
b)	*Advise government on how they can improve on budget reliability* • Embark on revenue reforms by deploying online systems • Internal control system on revenue collection to avoid leakages and operational inefficiencies • Out source revenue collection to the private sectors • Revenue collection agencies should be given clear targets
c)	*i) With reference to Public sector financial management framework explain the two main frameworks that provides an understanding of what constitutes public sector* i)The first framework is the system of National Accounts Framework which defines the public sector as consisting of the following characteristics: • Entitled to own goods or assets in its own right, and therefore able to exchange ownership of goods or assets in transactions with other Institutional units • Able to take economic decisions and engage in economic activities it is itself held directly responsible and accountable at law • It is able to incur liabilities on its own behalf , to take on other obligations or future commitments and to enter into contracts • It has a complete set of accounts , including a balance sheet of assets and liabilities or it would be possible and meaningful from an economic view point to complete set of accounts if required ii) The Second Framework is the is the Conceptual framework for General Purpose Financial Reporting by Public Sector provided by the IPSAB. • It defines public sector as Including : • National Government – e.g Government Ministry • Sub National Level – e.g Local Government • Public Corporation - Parastatal
d)	*Explain each functional category of the expenditure structure of the Zambian Budget* • The General Public Services function is made up of expenses relating to the organisation and operation of Government such as those related to Parliament, conduct of elections, the collection of taxes and the management of public funds and public debt, contributions to international organisations and the operations of the foreign missions. In addition, local government equalisation fund, external and domestic debt service, tripartite elections and referendum, compensation and award, and other services not mentioned are part of the general public services and the function cuts across various institutions. • The Defence function covers the services provided by the Ministry of Defence including the defence wings (Zambia Army, Zambia Airforce and Zambia National Service) and foreign military assistance to Zambia. • The Public Order and Safety function includes services provided by institutions such as the Zambia Police Service, the Judiciary, fire protection services, prisons services, and others.

	• The Economic Affairs function covers services provided by all economic ministries and institutions and includes general economic, commercial and labour affairs, transport, communication, agriculture, etc. Empowerment funds, the Fisheries Development Fund, the Farmer Input Support Programme, the Food Reserve Agency, the Rural Electrification Fund and roads infrastructure are part of the economic affairs function. • The Environmental Protection function relates to services involving waste management, pollution abatement and other environmental protection services. The Ministry of Local Government and Housing, the Ministry of Lands and local authorities are key players in this area. • The Housing and Community Amenities function is about water supply and sanitation, housing and community development, street lighting, and other services. Again the Ministry of Local Government and Housing and its apex institutions are vital in this domain. • The Health function refers to health services as provided by the Ministry of Health, the Ministry of Community Development, Mother and Child Health (partly), the Ministry of Defence (the military hospital) and the Zambia Police (medical services in clinics run by the institution). The services also include drugs and other medical supplies, infrastructure and equipment. • The Recreation, Culture and Religion function is all about recreation, sports and cultural services, broadcasting and publishing and other services. The Ministry of Youth and Sport; and the Ministry of Information and Broadcasting Services are at the centre of this function. • The Education function covers services relating to pre-primary and primary education, secondary and post-secondary education, tertiary education, school and university infrastructure and other education services. Here, services would cut across two ministries, i.e. the Ministry of General Education and the Ministry of Higher Education. • The Social Protection function includes services for retirees (Public Service Pension Fund), disabled and aged people, as well as social cash transfer and food security packs for the most vulnerable in society. The Ministry of Labour and Social Security and the Ministry of Community Development, Mother and Child Health (partly) are in charge of this function.
	Total

SOLUTION TWO

a)

Outcome	Low	Medium	High	Highest
NPV (K'm)	151	252	353	455
Probability	0.2	0.4	0.3	0.1
Expected values	**30.2**	**100.8**	**105.9**	**45.5**

The expected net benefits from the road construction is K82.4million (K282.4m – K200m). Scenario analysis shows that there is 20% chance of a net cost to the policy (low outcome) but a 40% chance of net benefits of K200million or greater (medium, high and highest outcomes). The question therefore is whether this project should go ahead given the risk of net costs or low benefits realisation. Decision makers will need to weigh up such considerations as to what extent this is an essential policy area and whether there are other projects with similar expected outcomes but which are more certain.

b)

Foreign project grants are provided to a particular nation on either a bilateral or multilateral basis to fund specific projects. As they are grants, they do not need to be repaid provided that the conditions attached to the grants are fulfilled and met.

Programme and Project loans are the funds that have to be repaid and in most instances attract interest. These include financing from multilateral organisations like the World Bank, European Investment Banks and African Development Banks. They also include bilateral financing from banks such as the Export-Import Bank of China.

c) While it is useful to borrow from these multilateral l institutions, particularly when domestic capital markets are constrained, the requirement to pay interest and repay capital restricts future spending flexibility. Additional issues arise if borrowing is made and repayments are required in form of a foreign currency such as the USD dollars, as depreciation of the local currency can lead to significantly higher repayments.

SOLUTION THREE

(a)
(1) Grants from the central government. These include recurrent and capital grants for general purposes and to support the delivery of specific services and the establishment of and services of infrastructure.
They include the local government equalization fund and the constituency development fund.
(2) Domestic borrowing- this includes:
(a) Bank loans
(b) Bank overdraft
© Leasing
(e) Issue of shares
(f) Or issue of bonds
(3) Councils are empowered to run profit ventures such as guest houses, lodges, stadiums, restaurants and shops and any other profit ventures.

(b)

Market failure occurs when the price mechanism fails to account for all of the costs and benefits necessary to provide and consume a good. The market will fail by not supplying the socially optimal amount of the good.

Prior to market failure, the supply and demand within the market do not produce quantities of the goods where the price reflects the marginal benefit of consumption. The imbalance causes allocative inefficiency, which is the over- or under-consumption of the good.

The structure of market systems contributes to market failure. In the real world, it is not possible for markets to be perfect due to inefficient producers, externalities, environmental concerns, and lack of public goods. An externality is an effect on a third party which is caused by the production or consumption of a good or service.

Causes of Market Failure

Market failure occurs due to inefficiency in the allocation of goods and services

- A price mechanism fails to account for all of the costs and benefits involved when providing or consuming a specific good. When this happens, the market will not produce the supply of the good that is socially optimal – it will be over or under produced.
- Due to the structure of markets, it may be impossible for them to be perfect.
- Reasons for market failure include: positive and negative externalities, environmental concerns, lack of public goods, under provision of merit goods, overprovision of demerit goods, and abuse of monopoly power.

Reasons for market failure include:

- **Positive and negative externalities**: an externality is an effect on a third party that is caused by the consumption or production of a good or service. A positive externality is a positive spillover that results from the consumption or production of a good or service. For example, although public education may only directly affect students and schools, an educated population may provide positive effects on society as a whole. A negative externality is a negative spillover effect on third parties. For example, secondhand smoke may negatively impact the health of people, even if they do not directly engage in smoking.
- **Environmental concerns:** effects on the environment as important considerations as well as sustainable development.
- **Lack of public goods:** public goods are goods where the total cost of production does not increase with the number of consumers. As an example of a public good, a lighthouse has a fixed cost of production that is the same, whether one ship or one hundred ships use its light. Public goods can be under produced; there is little incentive, from a private standpoint, to provide a lighthouse because one can wait for someone else to provide it, and then use its light without incurring a cost. This problem – someone benefiting from resources or goods and services without paying for the cost of the benefit – is known as the free rider problem.
- **Underproduction of merit goods:** a merit good is a private good that society believes is under consumed, often with positive externalities. For example, education, healthcare, and sports centers are considered merit goods.
- **Overprovision of demerit goods:** a demerit good is a private good that society believes is over consumed, often with negative externalities. For example, cigarettes, alcohol, and prostitution are considered demerit goods.
- **Abuse of monopoly power:** imperfect markets restrict output in an attempt to maximize profit.
- **Public good**: A good that is both non-excludable and non-rivalrous in that individuals cannot be effectively excluded from use and where use by one individual does not reduce availability to others.
- **Free rider**: One who obtains benefit from a public good without paying for it directly.
- **Monopoly**: A market where one company is the sole supplier.

In order to fully understand market failure, it is important to recognize the reasons why a market can fail. Due to the structure of markets, it is impossible for them to be perfect. As a result, most markets are not successful and require forms of intervention.

GOVERNMENT RESPONSE TO MARKET FAILURE

During market failures the government usually responds to varying degrees. Possible government responses include:

- Legislation – enacting specific laws. For example, banning smoking in restaurants, or making high school attendance mandatory.
- Direct provision of merit and public goods – governments control the supply of goods that have positive externalities. For example, by supplying high amounts of education, parks, or libraries.

- Taxation – placing taxes on certain goods to discourage use and internalize external costs. For example, placing a 'sin-tax' on tobacco products, and subsequently increasing the cost of tobacco consumption.
- Subsidies – reducing the price of a good based on the public benefit that is gained. For example, lowering college tuition because society benefits from more educated workers. Subsidies are most appropriate to encourage behavior that has positive externalities.
- Tradable permits – permits that allow firms to produce a certain amount of something, commonly pollution. Firms can trade permits with other firms to increase or decrease what they can produce. This is the basis behind cap-and-trade, an attempt to reduce of pollution.
- Extension of property rights – creates privatization for certain non-private goods like lakes, rivers, and beaches to create a market for pollution. Then, individuals get fined for polluting certain areas.
- Advertising – encourages or discourages consumption.
- International cooperation among governments – governments work together on issues that affect the future of the environment.

SOLUTION FOUR

(a) Circumstances which led to introduction of PETS.

(1) Missing information in many countries o funding transfers between different tiers of government and how these amounts were then utilized by frontline service facilities.

(2) PETS aims to provide that missing information by collecting micro level data from frontline service delivery facilities.

(b) How PETS are carried out.

(1) The first stage of a PETS implementation will see consultations with key stakeholders to define the objectives of the survey and to identify any key issues that are expected to arise.

(2) The survey team will then need to gain an understanding of the structure of funding flows and the institutional framework and also the extent to which data is available.

(3) Once this is done a hypothesis can be outlined and the most appropriate survey tools chosen.

(4) The design and implementation of survey instruments. This includes training of those carrying out the survey.

(5) One the full survey has been conducted and data collected it must be consolidated and cleansed before being analyzed and conclusions and recommendations drawn from it.

(6) These should be disseminated to a target audience, and follow up should be undertaken to assess improvements made as a result of the PETS.

(c) SIGMA principles carry a number of aspects of PFM which canreinforce a PEFA assessment. These include:

(1) Supreme audit institution independence

(2) Transparent and open public procurement practices

(3) Publication of medium term budgets and expenditure frameworks.

(4) Areas such as human resource management and service delivery specifically not covered by PEFA.

SOLUTION FIVE

a) Generally, attitudes to risk can be classified under one of the headings:
   i) Risk seeker- looks for high returns and accepts high risks which is associated with Maximax.
   ii) Risk averse- looks to limit risk, which will generally lead to low returns which is associated with Minimax.
   iii) Regret averse- seeks to minimise the impact of situations not going in their favour which is associated with Minimax regret.
   iv) Risk neutral- will tend to disregard individual risks and outcomes and instead focus on the expected value of a decision which is associated with expected value.

b) Based on the table:

   - ❖ If the board is risk seeker, it would look for high returns and accept the high risks associated with them. Therefore, it would select Option C as it has the highest possible return of 21.52 % and high risk given that the business is start-up which can easily fail to succeed under worse economic conditions such as recession.
   - ❖ If the board is risk averse, it would select Option A as it provides the highest return in the recession of 4.98%.
   - ❖ If the board is risk natural, it would invest in option B as it provides the highest expected value of 8.5%.

c) Fiscal risks are factors that may cause fiscal outcomes to deviate from expectations made at the time of government budget or other macroeconomic forecasts. These factors comprise potential shocks to government revenues, expenditures, assets, or liabilities, which are not reflected in the government's fiscal forecasts or reports.
   To aid fiscal transparency, the IMF recommended that government's regularly report on:
   i) Macroeconomic risks- how fiscal outcomes might differ from baseline forecasts as a result of different macroeconomic assumptions
   ii) Specific fiscal risks- the man specific risks to fiscal forecasts, including an estimate of the magnitude of the effect if they occur and, where practical, their likelihood.
   iii) Long-term fiscal sustainability analysis- projections of the evolution of the public finances over the long-term.

END OF SOLUTIONS