CA ZAMBIA PROGRAMME EXAMINATIONS

CA CERTIFICATE IN ACCOUNTANCY

CA 1.1: FINANCIAL ACCOUNTING

MONDAY 12 DECEMBER 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

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

1.1 The conceptual framework for financial reporting is concerned with general purpose financial statements. Which of the following parties are not directly aimed at, under the objective of general purpose financial statements?

A. Existing and potential investors
B. Creditors
C. Lenders
D. General public

(2 marks)

1.2 Which body issues the International public sector accounting standards?

A. IASB
B. IFAC
C. IPSASB
D. Central government

(2 marks)

1.3 Rent paid on 1 October 2020 for the year to 30 September 2021 was K1,200, and rent paid on 1 October 2021 for the year to 30 September 2022 was K1,600.

Rent expense, as shown in the statement of profit or loss for the year ended 31 December 2021, would be:

A. K1,200
B. K1,600
C. K1,300
D. K1,500

(2 marks)

1.4 A business had a balance at the bank of K250,000 at the start of the month. During the following month, it paid for materials invoiced at K100,000 less trade discount of 20% and cash discount of 10%. It received a cheque from a receivable in respect of an invoice for K20,000 subject to cash discount of 5%.

What was the balance at the bank at the end of the month?

A. K197,000
B. K198,000
C. K199,000
D. K200,000

(2 marks)

1.5 Your firm's cash book at 30 April 2022 shows a balance at the bank of K24,900. Comparison with the bank statement at the same date reveals the following differences:

	K
Unpresented cheques	8,400
Bank charges not in cash book	500
Receipts not yet credited by the bank	4,700
Dishonoured cheque not in cash book	1,400

The correct balance on the cash book at 30 April 2022 is:

A. K14,600
B. K23,000
C. K25,800
D. K31,400

(2 marks)

1.6 A business has the following items extracted from its accounting records. Sales K150,000, opening inventory K10,000, closing inventory K15,000. The business applies a constant mark
up of 25%.

Calculate the total purchases for the year.

A. K115,000
B. K145,000
C. K117,500
D. K125,000

(2 marks)

1.7 An income and expenditure account is:

A. A summary of the cash and bank transactions for a period
B. Another name for a receipts and payments account
C. Similar to a statement of profit or loss in reflecting revenue earned and expenses incurred during a period
D. A statement of financial position as prepared for a non-profit making organisation

(2 marks)

1.8 Governments produce financial reports regarding the sources and application of public funds.

Which of the following is NOT a user of public sector financial reports.

A. Central government
B. Taxpayers
C. International funding organizations
D. Company shareholders

(2 marks)

1.9 Mulenga and Twalumba commenced a partnership business investing K150,000 and K90,000, respectively and sharing profits and losses in the ratio 3:2. The profit for the year ended 31 December, 2021 was K24,000. Twalumba is more involved in the day to day running of the business. The drawings account balances at the end of the year were, Mulenga K8,000 and Twalumba K6,000.

The profit sharing agreement provides for:

- A salary of K9,600 per annum payable to Twalumba
- Interest on capital of 5% per annum
- Interest on drawings account of 3% per annum.

Calculate the balance on Twalumba's current account as at 31st December, 2021.

A. K9,048
B. K9,480
C. K9,660
D. K7,920

(2 marks)

1.10 Expenses incurred in the period should be matched with incomes earned in the same period in order to ascertain profit for the period.

Which accounting concept governs the above assumption?

A. Duality concept
B. Business entity concept
C. Accruals concept
D. Substance over form concept

(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) Mwalula is sole proprietor with a small business. Below is a list of balances of the trial balance extracted as at 31 December 2021 which failed to agree:

	K
Purchases	66,450
Payables	44,520
Sales	213,390
Discount allowed	2,220
Receivables	158,550
Sales Returns	6,300
Expenses	32,130
Non-Current Assets	68,250
Bank Overdraft	9,420
Capital	37,500
VAT Liabilities	18,960

Required:

Prepare the trial balance for Mwalula as at 31 December 2021 and derive the balance in suspense account as at 31 December 2021**.** (5 marks)

(b) A detailed examination of Mwalula's books was undertaken and the following matters were
uncovered:

1. The total in the purchases day book was K126,450, but the figure used when posting
to the purchases account was K66,450.
2. An invoice from a supplier for goods amounting to K25,500 plus VAT at 16% was not
recorded in the books of Mwalula.
3. During the bank reconciliation process, it came to light that K525.70 was earned in interest during the year and this amount has not been accounted for.
4. A review of Mwalula's ledgers revealed that receivables were overcast by K75,720.
5. Cash drawings by Mwalula, of K5,610, were treated as cash sales in error.

Required:

Prepare a suspense account as it would appear in Mwalula's books. (5 marks)

(c) Namoonga and Mainza have been in partnership for a number of years but without drawing a partnership agreement. The following balances have been extracted from the partnership books as at 1 January 2021.

K

Capital Accounts:	Namoonga	160,000
	Mainza	240,000
Current Accounts:	Namoonga	10,400 Dr
	Mainza	8,200 Dr

On 1 July 2021 they decided to admit Mulenga to the partnership. On this date, Mulenga introduced capital of K150,000 into the partnership, paid directly 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 but 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 Mulenga.
- 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:

Namoonga	K85,000
Mainza	K62,000
Mulenga	K38,000

Required:

(i) Prepare the Capital Accounts for Namoonga, Mainza and Mulenga for the year ended 31 December 2021. (8 marks)

(ii) Prepare the Appropriation Account for Namoonga and Mainza for the half year ended 30 June 2021. (2 marks)

[Total: 20 Marks]

QUESTION THREE

(a) You are the Accountant of Zumba Limited (Zumba). You are given the following information as expenditure of the construction of a building that took place in the year:

	K
Building materials	35,800
Land clearance	4,500
Hire of equipment	8,000
Administrative salaries	15, 600
Cost of repeat work	8, 800
Construction labour cost	18,700
Painting of building	6,385
Maintenance of lifts	3,940

Required:

(i) Explain the difference between capital expenditure and revenue expenditure. (2 marks)

(ii) Using the information above, calculate the cost of the building for initial recognition. (4 marks)

(iii) Explain the difference between depreciation of an asset and the impairment of an asset as it would apply to the building. (4 marks)

(b) Buffalo Football club had the following the following assets and liabilities on 1 January 2021:

Building	K520,000
Cash in bank	K13,600
Subscriptions in arrears	K2,500
Subscriptions in advance	K700

During the year the following transactions occurred:

Subscriptions for the year to 31 December 2021	K90,000
Subscriptions from previous year	K1,900
Subscriptions in advance for 2022	K1,500
Staff salaries	K25,000
General expenses	K54,000

Required:

(i) Calculate the accumulated fund on 1 January 2021. (2 marks)

(ii) Prepare the subscriptions account as at 31 December 2021. (4 marks)

(iii) Prepare receipts and payments account as at 31 December 2021. (4 marks)

[Total 20 Marks]

QUESTION FOUR

Mun'gombe is a retailer of curtains and has been operating for few years now. However, he has not kept an up to date record of its business transactions. There is no record of Mun'gombe's capital at the start of the year ending 31 March 2022, neither is there record for his sales, purchases and other changes to profit and loss account.

The following summaries have been provided to you for Mun'gombe's accounting period to 31 March 2022:

Bank account summary	**'K'**
Receipts	
Trade Receivables	158,400
Cash banked	24,600
Payments	
Trade payables	111,000
Rent	8,400

Machinery	45,000
Insurance	8,700
Wages	36,600
Dishonoured cheque	1500
Loan interest	2,400
Drawings	57,000

Bank account balance at 1 April 2021 was K49,800 with no opening cash balance.

The following additional information is relevant for Mun'gombe for the year to 31 March 2022:

1. Cash sales during the year under review amounted to K84,000 from which repairs and electricity bills of K1,800 and K4,500 respectively were paid, this was in addition to the cash banked.
2. Mun'gombe had inventory of curtains amounting to K24,600 on 1 April 2021 and K19,200 on 31 March 2022.
3. On 1 April 2021, Mun'gombe owed suppliers of curtains K14,400 and K15,000 on 31 March 2022. Prior to the reporting date, Mun'gombe made drawings of goods just after making purchases for his own home's curtains amounting to K1,800. When paying supplier during the year he received discount for prompt payment of K2,100.
4. Mun'gombe recalls that he issued to his customers credit notes to the value of K7,200, wrote off debts amounting to K2,400 on 10 January 2022 and his receivables had decreased from K37,800 to K30,000 between 1 April 2021 and 31 March 2022.
5. In order to finance his business expansion, Mun'gombe obtained a loan from his bankers in 2020 amounting to K30,000 which had not been repaid by 31 March 2022. Mun'gombe had Machinery valued at K75,600 on 1 April 2021 and K95,400 on 31 March 2022 and provided for depreciation of K25,200 for the year under review.
6. Mun'gombe had rent prepaid of K1,200 on 1 April 2021 and rent owing of K1,500 on 31 March 2022.

Required:

(a) Prepare Mun'gombe's computation of his capital at 1 April 2021. (3 marks)

(b) Prepare Mun'gombe's statement of profit or loss for the year ended 31 March 2022. (12 marks)

(c) Calculate closing balances on the bank and cash accounts. (5 marks)

[Total: 20 Marks]

Note: A Statement of financial position is not required.

QUESTION FIVE

On 15 October 2021, Mr. Lazalo received his bank statement for the month ended 30 September 2021. The statement showed a balance of K208,700 (overdraft) as at 30 September while cash book showed a balance of K262,995 (credit) as at that date.

On examination of the cash book and the bank statement, the following were discovered:

1. Mr Lazalo exceeded his overdraft limit during the month of September. The bank had therefore charged him a penalty of K1,250. This has not been effected in the cash book.

2. A sum of K6,250 had been credited to Lazalo's bank account in error by the bank.

3. Bank charges of K1,005 had not been recorded in the cash book.

4. A cheque for K6,150 received from a customer had been returned by the bank as dishonoured. Due to the dishonoured cheque, the bank charged Lazalo K75. Both the dishonoured cheque and the fee charged have not been effected in the cash book.

5. Cash receipts of K18,700 were posted as cash payment of K23,650 in the cash book.

6. On 21 September, Mr Lazalo lodged cash of K3,250 to his personal bank account. This was lodged into the business bank account in error by the bank.

7. Standing order and direct debits of K5,575 had not been posted to the cash book.

8. Payment of K10,850 received from customers have been lodged in the bank account but is yet to be posted to the cash book.

9. Lodgements of K25,600 to bank on 30 September 2021 had not been credited by the bank.

10. The following cheques drawn on the bank accounts had not been presented to the bank for payment as at 30 September 2021:

Cheque Number	Date cheque was written	K
No. 3528	11 September 2021	4,200
No. 3535	28 September 2021	8,700
No. 3557	30 September 2021	18,350

Required:

(a) Prepare the adjusted cash book for the month of September 2021.

(8 marks)

(b) Prepare a bank reconciliation statement on 30 September 2021, starting with the bank statement balance.

(8 marks)

(c) State two (2) reasons for preparing bank reconciliation statements on a regular basis. (4 marks)

[Total: 20 Marks]

QUESTION SIX

The following trial balance was extracted from books of Kasompa, a sole trader, on 30 June 2021.

	K	K
Land	349,000	
Delivery vans	129,480	
Accumulated depreciation on Delivery vans		34,820
Inventory as at 1/07/2020	35,900	
Receivables and Payables	205,480	285,900
Bank		19,710
VAT liability		4,550
Purchases and Sales	551,960	821,700
Purchases returns and sales returns	42,820	18,800
Discounts allowed and received	3,940	5,560
Rent expenses	43,900	
Carriage outwards	6,240	
Power, light and heat	6,280	
Telephone, internet and media	11,020	
Insurance	29,000	
Rates and water	15,080	
Wages and salaries	143,900	
Allowance for receivables 1/07/2020		10,960
Irrecoverable debts	11,960	
Drawings	19,350	
Accumulated profits		104,640
Capital		300,270
Suspense accounts	1,600	
	1,606,910	**1,606,910**

The following information, which has not been accounted for above, is also necessary:

1. The inventory count on 30 June 2021 showed closing inventory valued at K34,380.
2. A review of receivables as at 30 June 2021 showed that a further K2,300 was to be written off as an irrecoverable debt. Therefore, it was decided that the closing allowance for receivables was 10% of the outstanding receivables balance as at 30 June 2021.
3. On 30 June 2021, Kasompa received a cheque of K1,680 in relation to an irrecoverable debt previously written off.
4. A supplier of Kasompa has charged an interest of K1,490 on a payable balance that has been outstanding for over 200 days.
5. K16,000 of insurance in the trial balance above relates to 1 January 2021 to 31 December 2021.

6. Allowance to be made for depreciation is as follows: Land Not depreciated. Delivery van 10% straight line basis.
7. Upon investigation, it was revealed that the balance in the suspense account relates to a cash receipt from a customer of K 800 that was credited to the bank account in error.

Required:

(a) Prepare the statement of profit or loss for the year ended 30 June 2021.

(13 marks)

(b) Prepare the statement of financial position as at that date.

(7 marks)

[Total: 20 Marks]

END OF PAPER

CA1.1 FINANCIAL ACCOUNTING

SUGGESTED SOLUTIONS

SOLUTION ONE

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

SOLUTION TWO

(a) Mwalula's Trial Balance as at 31st December 2021

	Debit (K)	Credit (K)
Purchases	66,450	
Payables		44,520
Sales		213,390
Discount Allowed	2,220	
Receivables	158,550	
Sales Returns	6,300	
Expenses	32,130	
Non-Current Assets	68,250	
Bank Overdraft		9,420
Capital		37,500
VAT Liability		18,960
Suspense		10,110
	333,900	333,900

(b)

Mwalula's Suspense Account

Receivable	75,720	Balance b/d	10,110
		Purchases (126,450- 66,450)	60,000
		Sales	5,610
	75,720		**75,720**

(c) (i)

Partners' Capital Accounts

	Namoonga	Mainza	Mulenga		Namoonga	Mainza	Mulenga
	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:
   Namoonga 150,000 x 1/2 = 75,000
   Mainza 150,000 x 1/2 = 75,000

3. Goodwill in new ratio:
   Namoonga 150,000 x 1/3 = 50,000
   Mainza 150,000 x 1/3 = 50,000
   Mulenga 150,000 x 1/3 = 50,000

(c) (ii) **Namoonga and Mainza Appropriation Account for half year to 30 June 2021**

		K	K
Net Profit			235,900
Share of profits	Namoonga	117,950	
	Mainza	117,950	235,900

SOLUTION THREE

(a)

(i) Capital expenditure and revenue expenditure

1. Capital expenditure creates capacity for continued operations and the associated benefits are enjoyed in more than one accounting periods. Example, purchase of equipment.
2. Revenue expenditure is spending whose benefits are restricted to only one accounting period. It does not create operating capacity. Example, wages of general workers.

(ii) Dr Corrected Cash Book Cr

QUALIFYING EXPENDITURE		
Land clearance	35,800	
Building material	4,500	
Hire of equipment	8,000	
Construction labour	18,700	
Painting the building	6,385	
	73,385	

(iii) Depreciation and Impairment

Depreciation is the allocation of the cost of the asset to each of the accounting periods. It is a representation of normal reduction of the value of the asset as it is being used or as time passes

Impairment is the reduction in the value of an asset in addition to normal depreciation. Impairment of an asset is usually caused by an internal factor or an external factor that indicates that the asset has substantially lost its value on top of its depreciation.

(b) (i) Accumulated fund

Accumulated fund = assets – liabilities

520,000 + 13,600 +2,500 – 700 = K535, 400

(ii)

Dr Subscription Account Cr

Opening balance (in arrears)	2,500	Opening balance (in advance)		700
		Subscriptions received:		
Income and Expenditure	90,100	For the current year	90,000	
		From year's arrears		1,900
		For 2020 subscriptions	1,500	
Balance c/d (in advance)	1,500			
	94,100		94,100	

(iii)

Dr Receipts and Payments Account Cr

Opening balance	13, 600	Staff salaries	25, 000
Subscriptions received:		General expenses	54, 000
For the current year	90, 000		
From year's arrears	1,900	Balance c/d	28, 000
For 2020 (in advance)	1, 500		
	107, 000		107, 000

SOLUTION FOUR

(a) **Calculation of capital at 1 April 2021**

Assets on 1 April 2021

	'K'	'K'
Bank balance	49,800	
Inventory	24,600	
Rent prepaid	1,200	
Receivables	37,,800	
Machinery	75,600	
Liabilities on 1 April 2017		
Loan		30,000
Payables		14,400
Capital (balancing fig)	----------	144,600
	189,000	189,000

(b) Statement of profit or loss for Mun'gombe for the year ended 31 March 2022

	'K'	'K'
Sales (158,700+84,000-7,200)		242,700
Less returns inwards		(7,200)
Turnover		235,500
Less cost of sales:		
Opening inventory	24,600	
Purchases (113,700-1,800)	111,900	
Less closing inventory	(19,200)	
		(117,300)
Gross profit		118,200
Add discount received		2,100
Total income		120,300
Less expenses		

Rent (8,400 + 1,200 + 1,500)	11,100	
Insurance	8,700	
Wages	36,600	
Loan interest	2,400	
Repairs	1,800	
Electricity	4,500	
Irrecoverable debts written off	2,400	
Depreciation expense	25,200	
Total expenses		(92,700)
Net profit		27,600

Workings

1. Credit sales computation:

	'K'
Closing receivable balance	30,000
Plus: irrecoverable debts w/o	2,400
Plus: receipts from customers	158,400
Plus credit notes issued (returns in)	7,200
Less dishonoured cheque	(1,500)
Less opening balance b/f	(37,800)
Equals: credit sales	158,700
Plus cash sales	84,000
Total sales	242,700

2. Credit purchases computation

Closing payables c/f	15,000
Plus: Payments to suppliers	111,000
Plus: discount received	2,100
Less: opening balance b/f	14,400
Equals purchases	113,700

(c) i) **Bank account**

	Dr		**Cr**
	'K'		'K'
Balance b/f	49,800	trade payables	111,000
Cash banked	24,600	rent	8,400
Trade receivables	158,400	machinery	45,000

Balance c/f	37,800	insurance	8,700
		Interest on loan	2,400
		Wages	36,600
		Dishonored cheque	1,500
	----------	Drawings	57,000
	270,600		270,600
		Balance b/d	37,800

ii) **Cash account**

	'K'		'K'
cash sales	84,000	bank	24,600
		electricity	4,500
		repairs	1,800
	---------	balance c/f	53,100
	84,000		84,000
Balance b/d	53,100		

SOLUTION FIVE

(a) **Mr Lazalo's Adjusted Cash Book for the month ended 30 September 2021**

	K		K
Error	42,350	Balance	262,995
Credit transfer	10,850	Bank charges	1,005
Balance c/d	223,850	Overdraft penalty	1,250
		Dishonored Cheque	6,150
		Dishonored Cheque penalty	75
		Standing order	5,575
	277,050		**277,050**
			223,850

(b) Mr Lazalo's Bank Reconciliation Statement as at 30 September 2021

		K	K
Balance per bank			(208,700)
Correction of bank error		(6,250)	
Correction of bank error		(3,250)	(9,500)
			(218,200)
Add Outstanding Lodgement			25,600
			(192,600)
Less Outstanding cheques:	Number		
	3528	4,200	
	3535	8,700	
	3557	18,350	(31,250)
Balance as per revised cash book			(223,850)

(c) Reasons for preparing bank reconciliation on a regular basis

- Identification of errors 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 orders, direct debits and dishonoured cheques etc will be known by the bank but not identified by a business until it receives the bank statement and prepares the bank reconciliation.

SOLUTION SIX

(a) Kasompa Statement of Profit or Loss for the year ended 30 June 2021

	K	K	K
Sales			821,700
Sales returns			42,820
Net Sales			778,880
Cost of sales			
Opening Inventory		35,900	
Purchases	551,960		
Purchases returns	(18,800)	533,160	
		569,060	
Less Closing Inventory		(34,380)	(534,680)
Gross Profit			244,200
Discount received			5,560
Less Expenses:			
Rent expenses		43,900	
Depreciation on delivery van		12,948	
Insurance		21,000	
Rates and Water charges		15,080	
Wages and salaries		143,900	
Carriage outwards		6,240	
Discount allowed		3,940	
Interest charge		1,490	
Telephone, internet and media		11,020	
Increase in receivables		9,358	
Irrecoverable debts		14,260	
Irrecoverable debt recovered		(1,680)	
Power, light and heat		6,280	(287,736)
Operating loss			(37,976)

(b) Statement of Financial Position as at 30 June 2021

Non-current Assets	K	K	K
Land	349,000		349,000
Delivery van	129,480	(47,768)	81,712
Current Assets			
Inventory		34,380	
Receivables	203,180		
Closing allowance	(20,318)	182,862	
Prepayments		8,000	225,242
			655,954

Equity and Liabilities		
Capital		300,270
Accumulated Profit b/f	104,640	
Loss during the year	(37,976)	
Accumulated profit		66,664
Drawings		(19,350)
Current Liabilities		
Payables	287,390	
Bank overdraft	16,430	
Vat Liability	4,550	308,370
		655,954

WORKINGS

1. Receivables

Receivable as per TB	205,480
Additional irrecoverable debt	2,300
Restated receivables	203,180
Allowance for irrecoverable	10%
Closing Allowance	20,318
Opening Allowance	(10,960)
	9,358
Irrecoverable debt as per TB	11,960
Additional irrecoverable	2,300
Restated debts recovered	14,260

2. Bank

Bank as per TB	(19,710)
Irrecoverable debts recovered	1,680
	(18,030)
Suspense a/c	1,600
	(16,430)

3. Payables

Payable	285,900
Interest Charges	1,490
	287,390

4. Insurance

Insurance as per TB	29,000
Prepayment	(8,000)
	21,000

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA CERTIFICATE IN ACCOUNTANCY

CA 1.2 BUSINESS STATISTICS

WEDNESDAY 14 DECEMBER 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 formula book must be provided. Request for one if not give by the Invigilator.

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 How do we find the interquartile range?

A. Divide the biggest number by the smallest number
B. Divide the 3rd quartile by the first quartile
C. Subtract the 1st quartile from the 3rd quartile
D. Subtract the smallest number from the largest number (2 marks)

1.2 If the scores on a test have a mean of 27 and a standard deviation of 5, what is the Z – score for a score of 15?

A. +2.4
B. +12
C. – 12
D. – 2.4

(2 marks)

1.3 Which of the following is a measure of both location and spread of data.

A. Mean
B. Median
C. Range
D. None of the above

(2 marks)

1.4 The table below shows the allocation of monthly budget on a certain household.

Classification	**Amount**
Church Tithe and offering	K5,000
Foods	K6,500
Groceries	K2,300
School expenditure	K5,350
Transport	K2,000
Others	K6,500

What is the proportion of groceries of the family budget?

A. 8.3%
B. 10.9%
C. 91.7%
D. 50%

(2 marks)

1.5 Which one of the following variables is not categorical?

A. Gender of a person
B. Choice on a test item: true or false
C. Marital status of a person
D. Age of a person

(2 marks)

1.6 A study of daily stock exchanges for the past 10 years for the Zambian stock market was conducted. Which of the following is the most useful time series component for analyzing this data?

A. Irregular
B. Seasonal
C. Trend
D. Cyclical.

(2 marks)

1.7 The events A and B such that $P(A) = 0.45$, $P(B) = 0.35$ and $P(A \cup B\ ) = 0.7$.

Find the $P(A \cap B)$.

A. 0.1575
B. 0.1
C. 0.80
D. 0.20

(2 marks)

1.8 Nationality is an example of what level of measurement.

A. Interval
B. Ratio
C. Nominal
D. Ordinal

(2 marks)

1.9 The mean salary of a group of 50 persons is K6 850. Later on it is discovered that the salary of one employee has been wrongly taken as K8,000 instead of K7,800. The corrected mean salary is.

A. 6,854
B. 6,846

C. 6,650
D. None of the above

(2 marks)

1.10 Cartons of orange juice are advertised as containing 1 litre. A random sample of 100 cartons gave the following results for the volume, x.

$$\sum x = 101.4 \qquad \sum x^2 = 102.83$$

The standard deviation of the volume of orange juice in these 100 cartons is?

A. 0.0102
B. 0.1100
C. 0.1101
D. 0.0010

(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)

In the subsequent five years the incidence of death due to cancer (measured in deaths per 100 000 person-years) was recorded. With Index (X) as the independent variable and number of Deaths (Y) as the response variable, some summaries are given below:

Area	Index (X)	Deaths (Y)
1	7.6	62
2	23.2	75
3	3.2	51
4	16.6	72
5	5.2	39
6	6.8	43
7	5.0	55

Consider the simple linear regression model

$$y_i = a + bx_i + \varepsilon_i$$

Where $\varepsilon \sim N(\mu, \sigma^2)$

(a) Estimate a and b from the data. (12 marks)

(b) In another geographical area close to the power station the index of exposure was 6.0. Use the estimated regression line to estimate the incidence, in this area, of death due to cancer. (3 marks)

(c) Calculate the coefficient of variation, r^2, and interpret the result. (5 marks)

[Total: 20 Marks]

<u>QUESTION THREE</u>

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

(i) The number of maize seed varieties in an Agro shop (1 mark)
(ii) The number of individuals who obtains a merit in a test (1 mark)
(iii) The minutes taken complete voting for a candidate in a booth (1 mark)
(iv) The age of a job applicant (1 mark)
(v) The make of a car owned by an individual (1 mark)

(b) The following data represent the numbers of COVID-19 cases reported in December 2020 in five provinces.

Name of city	Number of babies
Copperbelt	203
Eastern	80
Western	70
Lusaka	290
Luapula	77

Draw a pie chart to illustrate this information. (8 marks)

(c) A corporation has three contracts B_1, B_2, and B_3 that are going to be assigned to two firms (one firm could receive both contracts) or (B_2, B_3) might denote that the first firm gets contract B_2 and the second firm gets contract B_3.

(i) List the possible outcomes in this experiment of assigning the two firms to the three (3) contracts. (3 marks)

(ii) Let A denote the event that the same contract goes to both firms and let B be the event that contract B_2 is obtained by at least one firm. Find the probability $P(A)$ and $P(B)$. (4 marks)

[Total: 20 Marks]

QUESTION FOUR

(a) A review of a plumber's record indicates that the time taken for a service call can be represented by a normal distribution with mean 50 minutes and the standard deviation 10 minutes.

(i) What proportion of the service calls take more than 30 minutes? (3 marks)

(ii) What proportion of the service calls take less than an hour? (3 marks)

(iii) What proportion of the service calls take between 35 to 53 minutes? (4 marks)

(b) The data given below show the number of cars arriving at a tollgate during 24-minute interval.

19, 34, 28, 37, 20, 28, 22, 29, 27, 27, 39, 25, 17, 21, 34, 25, 33, 23, 16, 34, 28, 31,32,35

Required:

Calculate

(i) The mean. (2 marks)

(ii) The median. (2 marks)

(iii) The mode. (2 marks)

(iv) The first and third quartiles. (2 marks)

(v) The quartile deviation. (2 marks)

[Total: 20 Marks]

QUESTION FIVE

(a) You are trying to label the variables in your study by what type they are. Given the following questions from the survey state what type of variable each question deals, qualitative or quantitative.

(i) How old are you?

(ii) Where do you live? Give the name of your city.

(iii) How many siblings do you have?

(iv) What is your weight?

(v) What is your birthdate?

(vi) What grade are you in?

(vii) Do you smoke?

(7 marks)

(b) The weights of coffee in 80 jobs is shown in the following table:

Weights(in grams)	**Frequency**
200 – 201	15
201 – 202	28
202 – 203	19
203 – 204	12
204 – 205	3
205 – 206	3

Determine:

(i) The range (2 marks)

(ii) The mean (2 marks)

(iii) The variance (3 marks)

(iv) The standard deviation (1 mark)
(v) The coefficient of skewness (5 marks)

[Total: 20 Marks]

QUESTION SIX

(a) A Biologist has studied a particular tropical insect and she discovered that its life span is normally distributed with a mean lifespan of 72 days and the standard deviation of 8 days. Find the probability that the next insect studied lives;

(i) Fewer than 70 days (4 marks)

(ii) Between than 60 days and 80 (6 marks)

(b) The table below shows a daily and weekly output of material produced in a fabrics generating company.

	Week 1	Week 2	Week 3
Monday	90	92	94
Tuesday	114	120	126
Wednesday	104	107	110
Thursday	130	135	140
Friday	72	74	76

Using the multiplicative model, find the trend and 5 day moving average seasonal variation for each of the 15 days. (10 marks)

[Total: 20 Marks]

END OF PAPER

CA1.2 BUSINESS STATISTICS

SUGGESTED SOLUTIONS

SOLUTION ONE

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

SOLUTION TWO

(a)

Index (X)	Deaths (Y)	XY	X^2	Y^2
7.6	62	471.2	57.76	3844
23.2	75	1740	538.24	5625
3.2	51	163.2	10.24	2601
16.6	72	1195.2	275.56	5184
5.2	39	202.8	27.04	1521
6.8	43	292.4	46.24	1849
5	55	275	25	3025
67.6	**397**	**4339.8**	**980.08**	**23649**
(i)	(ii)	(iii)	(iv)	(v)

(b) Therefore,

$$b = \frac{n\sum XY - \sum X \sum Y}{n\sum X^2 - \left(\sum X\right)^2} = \frac{7\times 4339.8 - 67.6\times 397}{7\times 980.08 - (67.6)^2} = \frac{3541.4}{2290.8} = 1.55$$

and

$$a = \overline{Y} - \beta\overline{X} = \frac{397}{7} - 1.55\left(\frac{67.6}{7}\right) = 41.75$$

Hence, the least–squares regression line is

$$y = a + bx = 41.75 + 1.55x$$

$$y = a + bx = 41.75 + 1.55 \times 6 = 51.05$$

(c)

$$\boldsymbol{r} = \frac{\boldsymbol{n}\sum \boldsymbol{xy} - \sum \boldsymbol{x} \sum \boldsymbol{y}}{\sqrt{[\boldsymbol{n}\sum \boldsymbol{x}^2 - (\sum \boldsymbol{x})^2][\boldsymbol{n}\sum \boldsymbol{y}^2 - (\sum \boldsymbol{y})^2]}}$$
$$= \frac{7(4339.8) - (67.6)(397)}{\sqrt{[7(980.08) - 67.6^2][7(23649) - 397^2]}} = \mathbf{0.83}$$

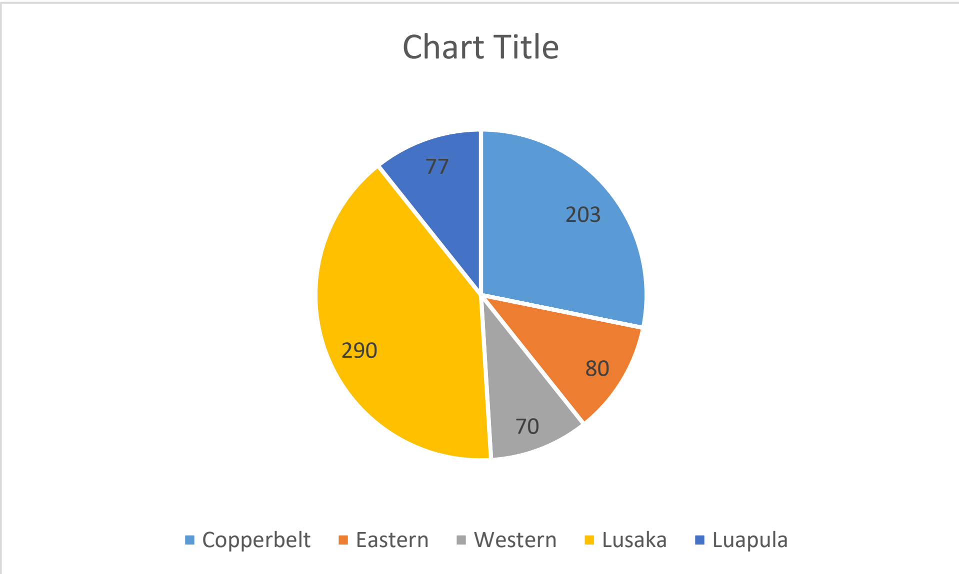
There is a strongly positive correlation between the variables

SOLUTION THREE

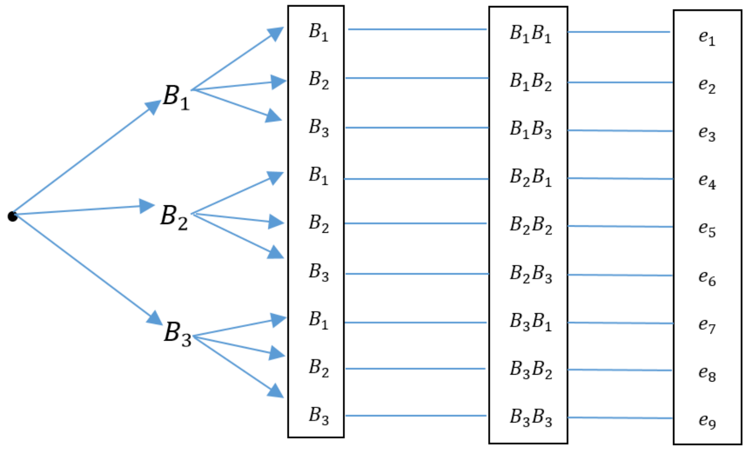
(a) i) discrete
ii) discrete
iii) continuous.
iv) continuous.
v) discrete

(b)

Name of city	Number of babies	degrees
Copperbelt	203	101.5
Eastern	80	40
Western	70	35
Lusaka	290	145
Luapula	77	38.5
Total	720	



(C)



i. Sample space (S):

$$S = \{B_1B_1 , B_1B_2 , B_1B_3 , B_2B_1 , B_2B_2 , B_2B_3 , B_3B_1 , B_3B_2 , B_3B_3 \}$$

ii. $A = \{B_1B_1, B_2B_2, B_3B_3 \}$, $B = \{B_1B_2, B_2B_1 , B_2B_2 , B_2B_3 , B_3B_2 \}$

- $P(A) = P(B_1B_1) \;\; or \;\; P(B_2B_2) \;\; or \;\; P(B_3B_3)$

$$= P(e_1) \;\; or \;\; P(e_5) \;\; or \;\; P(e_9)$$

$$= \frac{1}{9} + \frac{1}{9} + \frac{1}{9} = \frac{3}{9}$$
$$= \frac{1}{3}$$

- $P(B) = P(B_1B_2) \;\; or \;\; P(B_2B_1) \;\; or \;\; P(B_2B_2) + or \;\; P(B_2B_3) \;\; or \;\; P(B_3B_2)$

$$= P(e_2) \;\; or \;\; P(e_4) \; or \; P(e_5) + or \;\; P(e_6) \;\; or \;\; P(e_8)$$

$$= \frac{1}{9} + \frac{1}{9} + \frac{1}{9} + \frac{1}{9} + \frac{1}{9}$$
$$= \frac{5}{9}$$

SOLUTION FOUR

(a) The normal distribution with $\mu = 50$ and $\sigma = 10$

(i) $P(X > 30) = P\left(Z > \frac{30-50}{10}\right) = P(Z > -2) = 0.9772$

(ii) $P(X < 60) = P\left(Z > \frac{60-50}{10}\right) = P(Z < 1) = 0.8413$

(iii) $P(35 < X < 53) = P\left(\frac{35-50}{10} < Z < \frac{53-50}{10}\right) = P(-1.5 < Z < 0.3) =$ 0.5511

(b) Construct an array of numbers

(i) The mean

16	17	19	20	21	22	23	25
25	27	27	28	28	28	29	31
32	33	34	34	34	35	37	39

$$\bar{X} = \frac{664}{24} \approx 27.67$$

(ii) Median

Position is given by two middle values the 12th and 13th values

$$Median = \frac{28 + 28}{2} = 28$$

(iii) The mode

We have a bimodal distribution 28 and 34

(iv) 1st and 3rd quartiles

Position of the first quartile is given by $\frac{1}{4}(24) = 6th\,position \quad Q_1 = 22$

Position of third quartile is given by $\frac{3}{4}(24) = 18th\,position,\ Q_3 = 33$

(v) Quartile deviation

$$QD = \frac{1}{2}(33 - 22) = 5.5$$

SOLUTION FIVE

(a)

(i) quantitative ; $x \geq 0$

(ii) qualitative; $x = 0,1,2,3,\cdots$

(i) quantitative ; $x \geq 0$
(ii) quantitative ; $x \geq 0$
(iii) qualitative; $x = 0,1,2,3,\cdots$
(iv) qualitative; $x = 0,1,2,3,\cdots$
(v) qualitative; $x = 0,1,2,3,\cdots$

(b)

(i)

Weights (in grams)	Midpoint (x)	Frequency (f)	Cumulative frequency (F)	xf	x^2f
200 – 201	200.5	15	15	3007.5	603 003.75
201 – 202	201.5	28	43	5642	1 136863.00
202 – 203	202.5	19	62	3847.5	779 118.75
203 – 204	203.5	12	74	2442	911 069.50
204 – 205	204.5	3	77	613.5	125 460.75
205 – 206	205.5	3	80	616.5	126 690.75
		$\sum f = 80$		$\sum xf = 16169$	$\sum x^2 f = 3682206.5$

(i) $Range = 206 - 200 = 6$

(ii) $\mu = \frac{\sum xf}{\sum f} = \frac{16169}{80} = 202.1125$

(iii) $\sigma^2 = \frac{\sum x^2 f - \frac{(\sum x)^2}{\sum f}}{\sum f} = \frac{3682206.5 - \frac{(16169)^2}{80}}{80} = 5178.12$

(iv) $\sigma = \sqrt{5\,178.1186} \approx 71.96$

(v) Coefficient of skewness

$$SK = 3\frac{(mean - median)}{standard\ deviation}$$

Where, $median = 201 + \frac{(40-15)}{28}(1) = 201.89$

Therefore, $SK = \frac{3(202.1125 - 201.89)}{71.96} \approx 0.0093$

SOLUTION SIX

(a) i) $P(X < 70) = P\left(Z < \frac{X-\mu}{\sigma}\right)$

$$= P\left(Z < \frac{70-72}{8}\right)$$
$$= P(Z < -0.25)$$
$$= 1 - 0.4013$$
$$= 0.5987$$

ii) $P(60 < X < 80) = P\left(Z > \frac{X-\mu}{\sigma}\right)$

$$= P\left(\frac{60-72}{8} < Z < \frac{80-72}{8}\right)$$
$$= P(-1.5 < Z < 1)$$
$$= 1 - (0.0668 + 0.1587$$
$$= 0.7745$$

(b)

		Actual Y	Moving totals of Five days'output	Trend (T)	Seasonal variation Y/T
Week 1	**Monday**	**90**			
	Tuesday	**114**			
	Wednesday	**104**	**510**	**102**	**1.019**
	Thursday	**130**	**512**	**102.4**	**1.269**
	Friday	**72**	**518**	**103.6**	**0.695**
Week 2	**Monday**	**92**	**521**	**104.2**	**0.883**
	Tuesday	**120**	**526**	**105.2**	**1.141**
	Wednesday	**107**	**528**	**105.6**	**1.013**
	Thursday	**135**	**530**	**106**	**1.274**
	Friday	**74**	**536**	**107.2**	**0.690**
Week 3	**Monday**	**94**	**539**	**107.8**	**0.871**
	Tuesday	**126**	**544**	**108.8**	**1.158**
	Wednesday	**110**	**546**	**109.2**	**1.007**
	Thursday	**140**			
	Friday	**76**			

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA CERTIFICATE IN ACCOUNTANCY

CA1.3: BUSINESS ECONOMICS

TUESDAY 13 DECEMBER 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 The optimum level of output for a perfectly competitive firm is given by the point where…………………………………….

A. Marginal revenue is equal to average total cost
B. Marginal revenue is equal to marginal cost
C. Marginal revenue exceeds marginal cost by a greatest amount
D. Marginal revenue is equal to marginal cost and marginal cost is rising

(2 marks)

1.2 Which of the following elasticities measure a movement along a curve rather than a shift in a curve?

A. The price elasticity of demand
B. The income elasticity of demand
C. The cross elasticity of demand
D. Both (a) and (b)

(2 marks)

1.3 Which of the following is likely to be a government objective rather than its macroeconomic policy?

A. Lower interest rates
B. Lower inflation
C. Lower tax rates
D. Lower government spending (2 marks)

1.4 A market structure with interdependent of firms is called……….

A. Oligopoly
B. Perfect competition
C. Monopoly
D. Monopolistic competition

(2 marks)

1.5 …………………..is used to trade financial instruments whose maturity is less than one year.

A. Equity market
B. Capital market

C. Money market
D. Bond market

(2 marks)

1.6 If the Marginal Propensity to Consume is 0.75, what is the value of the spending multiplier?

A. 75%
B. 0.75
C. 1.33
D. 4

(2 marks)

1.7 When would the Bank of Zambia implement a restrictive monetary policy?

A. During low inflation
B. During high unemployment
C. During high inflation
D. When aggregate demand is low

(2 marks)

1.8 What is the fundamental problem of economics?
A. Land
B. Scarcity
C. Capital
D. Labour

(2 marks)

1.9 The comparative advantage theory of international trade shows that trade arises because of differences between countries in……………………..

A. Resource endowment
B. Absolute production costs
C. Opportunity costs of production
D. Patterns of consumer demand

(2 marks)

1.10 A demand curve shows that………………………………

A. More will be purchased at lower prices than at higher ones
B. Less will be purchased at lower prices than at higher ones
C. Approximately the same quantity will be purchased at lower prices and at higher prices.
D. All the people have an ability, desire and willingness to pay.

(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)

Tiyeseko Milling Limited is a company located in Chipata, Eastern province specialised in producing mealie meal from maize. Management at the company is interested in understanding cost behaviour so that correct decisions can be made. The company engaged its Cost Accountant to provide information relating to the quantity of bags of maize produced with the associated fixed cost and variable cost.

The table below shows the output of mealie meal bags produced at Tiyeseko Milling Limited:

Output per week(units)	**Fixed costs (FC)**	**Total variable cost(TVC)**	**Total cost(TC)**	**Marginal cost(MC)**	**Average fixed costs(AFC)**	**Average total cost (ATC)**
0	10,000	-				
10	10,000	2,000				
20	10,000	3,400				
30	10,000	4,400				
40	10,000	5,400				
50	10,000	6,750				
60	10,000	8,600				

Required:

(a) Complete the columns for Total Cost (TC), Marginal Cost (MC), Average fixed cost (AFC) and average total cost(ATC) (14 marks)

(b) Explain the behaviour of average fixed cost as more and more units are produced.

(2 marks)

(c) If the company is selling its mealie meal at K1,000 per bag, how many bags should it produce to maximize profits and what is the maximum profit? (4 marks)

[Total: 20 Marks]

QUESTION THREE

During the last week of January 2022, Southern Africa was ravaged by disastrous tropical cyclone named ANNA. A trail of destruction was reported due to strong winds averaging 120km/h and extremely heavy rain averaging 200mm/24h. Zambia's six out of ten provinces were affected. Strong winds damaged infrastructure, property and flash floods displaced many families leaving a trail of destruction of crop fields. This is likely to negatively impact the crop yield in the 2021/2022 farming season. The cyclone is attributed to climate change (Source: Zambia Meteorological Department). Economist attribute the agriculture sector to be a model of a perfectly competitive market structure.

Required:

(a) Outline any five (5) characteristics of a perfectly competitive firm. (5 marks)

(b) State the condition for profit-maximisation under perfect competition. (3 marks)

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

(i) Movement along the supply curve for Maize in Zambia (4 marks)
(ii) Shift in a supply curve for maize in Zambia (4 marks)
(iii) How bad weather affects the equilibrium price and quantity for maize. (4 marks)

[Total: 20 Marks]

QUESTION FOUR

Money is used in almost half of all exchanges. Workers exchange labour services for money. People buy or sell goods for money. We accept money not to consume it directly but to use it subsequently to buy things we do wish to consume. Money is the medium through which people exchange goods and services, however, money serves other functions as well. People hold cash for many reasons. The central bank has the autonomous function of influencing the supply of money. Combining this with the demand for money by consumers and firms, it is possible to determine the equilibrium point.

Required:

(a) Explain any other three (3) functions of money other than medium of exchange. (6 marks)

(b) Describe three (3) motives why people hold (demand) money. (6 marks)

(c) Draw a graph depicting equilibrium in the money market showing both demand for money (Md) and supply of money (Ms) at an interest rate that clears the market. (4 marks)

(d) Explain how a reduction in money supply would affect the market rate of interest in the short run. (4 marks)

[Total: 20 Marks]

QUESTION FIVE

Economists see the world through a different lens than other disciplines. They analyse issues and problems with economic theories that are based on particular assumptions about human behaviour. A theory is a simplified representation of how two or more variables interact with each other. The purpose of theory is to take a complex real-world issue and simplify it down to its essentials. If done well, this enables the analyst to understand the issue and any problems around it. One good model used by Economists is the Circular Flow of Income diagram. It pictures the economy as consisting of two groups namely households and firms that interact in the two markets namely the goods and services market and the labour market.

Required:

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

(b) Explain how a cost to households represents income for firms, and vice versa.

(3 marks)

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

(d) Explain the meaning of the term 'GNP per Capita'. (4 marks)

[Total: 20 Marks]

QUESTION SIX

One of the best measures of an economy is its growth rate. Economic growth does not increase continually, but rather in spurts, by cycling through peaks and recessions. Often, peaks are associated with higher prosperity, but also with higher inflation, while recessions are associated with higher unemployment. The government of Zambia under the vision 2030, seeks to develop the Zambian economy towards the status of a prosperous middle income country. The post-2000 policy initiatives aimed at diversifying the economy by building stronger manufacturing and agriculture sectors so as to reduce dependency on copper were designed. The main aim was to improve Zambia's Balance of Payment through increased exports.

Required:

(a) Define the term economic growth. (2 marks)

(b) Describe the current account and capital account of the Balance of Payments.

(12 marks)

(c) Outline any three (3) advantages and disadvantages of flexible exchange rate regime. (6 marks)

[Total: 20 Marks]

END OF PAPER

CA 1.3 BUSINESS ECONOMICS

SUGGESTED SOLUTIONS

SOLUTION ONE

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

SOLUTION TWO

(a) The table is shown below:

Output per week(units)	Fixed costs (FC)	Total variable cost(TVC)	Total cost(TC)	Marginal cost(MC)	Average fixed costs(AFC)	Average total cost (ATC)
0	10,000	-	10,000	-	-	-
10	10,000	2,000	12,000	200	1,000	1,200
20	10,000	3,400	13,400	140	500	670
30	10,000	4,400	14,400	100	333	480
40	10,000	5,400	15,400	100	250	385
50	10,000	6,750	16,750	135	200	335
60	10,000	8,600	18,600	185	167	310

(b) The average fixed costs continuously fall as more and more units are produced. This is because the fixed cost of K10,000 is being shared by increasing units.

(c) Profit is maximised at a point where MR = MC = K100 where Q = 40 units. Total revenue = 40 x 10 x K100 = K40,000, hence profit = K40,000 – K15,400 = **K24,600**

SOLUTION THREE

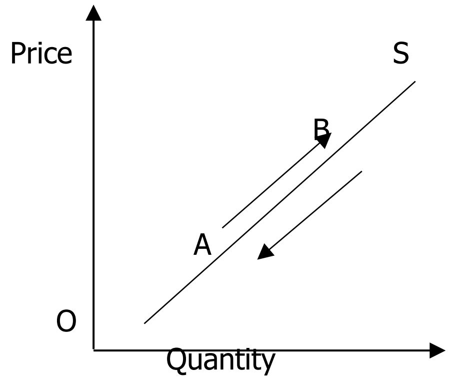
(a) The characteristics of a perfectly competitive industry are:

- There are **many buyers and sellers**, none of which has a significant share of the market.
- There is **free entry into the market** so that newly established firms are able to compete on equal basis with existing firms.
- Firms are **price takers**.
- **Homogeneous products** and perfectly substitutable in the eyes of consumers are produced or provided.
- There is **perfect flow of information and knowledge** so that consumers are aware of the price quoted by each producer and producers on the other hand have access to the same technology.
- There are **no transport or information gathering costs**.

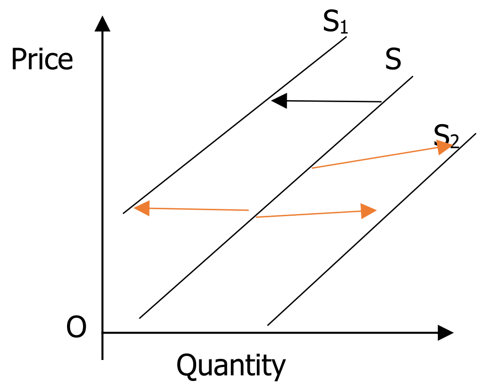
(b) The condition for profit maximisation under perfectly competitive industry is marginal cost (MC) being equal to marginal revenue equal to price $MR = MC = AR = P$

(c) The following are the graphs:

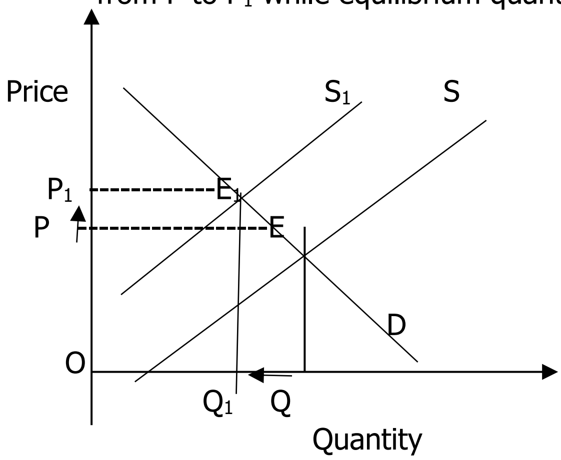
i) A movement along a demand curve is caused by the change in the price of maize. This is illustrated as a movement from A to B or B to A as shown below:



ii) A shift in the supply curve could either be leftwards or rightwards. The initial curve is S. A leftward shift from S to S_1 is called a decrease in supply while a rightward shift from S to S_2 is described is an increase in supply. This is caused by a change in any factor affecting supply other than the price of maize.



iii) The initial market equilibrium occurs at point E (Q, P) where demand is equal to supply. Bad weather shifts the supply curve for maize to the left. This moves equilibrium point from E to E_1. At this point equilibrium price has increased from P to P_1 while equilibrium quantity has decreased from Q to Q_1.



SOLUTION FOUR

(a) **Functions of Money**

- **A Unit of Account and a Measure of Value**: Money acts as a common measure or standard value of the unit account of goods and services. The value of goods and services is reduced to a single unit of account, and therefore the process of exchange is greatly simplified.
- **A Store of Value**: Money is the most convenient way of keeping any income, which is surplus to immediate requirement. It makes possible a build-up of stores of many things for future use, a store of wealth.
  Money can also be stored in the form of other assets such as houses, but money is a preferred because it is a liquid store of wealth. This means that money can be converted almost immediately into a medium of exchange without 'loss of face value'. Assuming that money is stable in value!
- **Standard for Deferred Payments**: Use of money makes it possible for payments to be deferred from the present to some future date. Borrowing and lending are greatly simplified, loans are taken and repaid in the form of money. Credit transactions cannot easily be carried out unless money is used. Given the assumed stability in its value, future contracts are fixed.

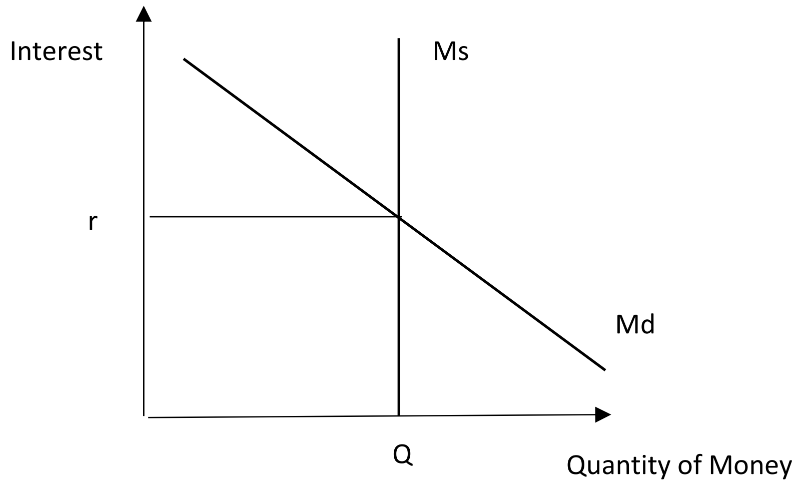
(b) **Motives For Holding Money**
According to Lord Keynes there are three motives for holding money.

- **The transactions motive**: Both consumers and businessmen hold money to facilitate current transactions. A certain amount of money is needed for every day requirements, the purchase of food, clothing, to pay casual workers etc.

- **The Precautionary Motive**: Most people like to keep money in reserve, in case an unexpected payment has to be made, e.g. illness, funeral, accident, car defects, household appliance defects, etc. 'Active' balances, depends any, fairly inelastic, less inelastic in the 2nd and elastic in the 3rd known as 'idle' balances.

- **The Speculative Motive:** This is for the purpose of accumulating more, since holding money in active balances does not yield any interest. Speculation depends on the expectation of the future tend in securities e.g. attractive shares and govt. stock, this generally moves in the opposite direction with interest rates if interest rates go up i.e. people think the price of stocks will go down in the future they will hold money …

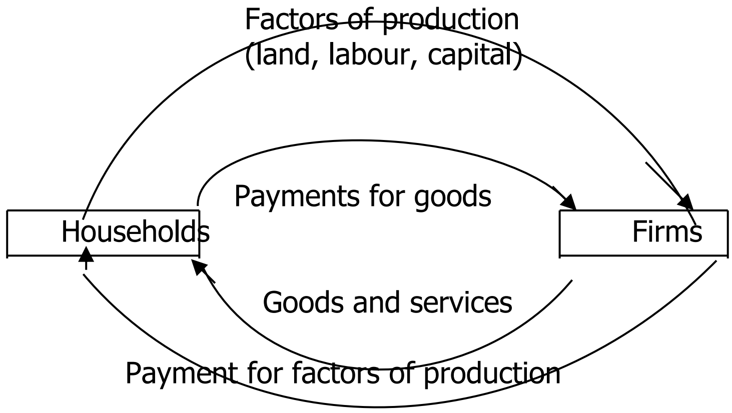
(c) The equilibrium money market is represented by the graph below. Equilibrium occurs where money supply MS1 intersects with demand for money MD1. Therefore, Q1 is the quantity of money and r1 is the prevailing interest rate.



(d) A reduction in the real money supply due to Treasury bill sales causes a disequilibrium in asset holders' portfolios, such that there is an excess of Treasury bills and shortage of money at the prevailing interest rate. The result will be that Treasury bill prices fall and the interest rate will rise. Equilibrium is restored at a higher interest rate which eliminates the excess supply of bills and the shortage of money

SOLUTION FIVE

(a) The Circular flow of income diagram:



(b) The inner bottom loop shows households purchase of goods and services from business firms. Thus what is a cost or a consumption expenditure from the point of view of households represent the income or the money receipts of business firms. On the other hand, the top loop shows business firms purchase factors of production from the households. Thus, what is the cost of production from the point of view of business firms represents the money income of the households.

(c) From the Circular flow diagram, the methods of measuring national income are:

- Expenditure method represented by the top loop(consumption expenditure) from households to firms
- Output method represented by the inner upper loop(Goods and services) from firms to households
- Income method represented by the bottom loop(payment for factors of production) from firms to households

(d) GNP per capita is the value of final goods produced divided by the total population. It is used to measure the standard of living in a country.

SOLUTION SIX

(a) Economic growth is an increase in the real output of an economy.

(b) Balance of Payment

- **The current account:** This shows a record of net flow of money from transactions involving the purchase of goods and services, and transfer payments. The current account itself is divided into basically two parts namely
- **Trade in goods (**known as visible or trade account) The exports and imports of physical commodities such as copper and maize are recorded on this account. The account may show a surplus or a deficit. Exports are money coming into a country and if the exports are higher than the imports, then there is a surplus on the visible trade account and vice versa.
- **Trade in services** (known as invisible trade account) This is usually recorded as a net figure, implying the difference exports and imports of services such as tourism, insurance, civil aviation, patents, foreign aid, grants, gifts etc.
- It also includes the difference between factor incomes payable and receivable such as wages to foreign workers, interest on foreign debt, dividend payments on shares held by foreigners or income on any foreign investments. It is recorded as net transfer income from abroad or paid abroad depending on whether there is a higher net inflow or a higher net outflow of money respectively. This account can either be in surplus or deficit.
- The current account, being a combination of the two accounts above, can either be positive or negative, that is either a surplus or a deficit. When exports or money received from trade in goods, services and factor incomes exceed imports or money paid for trade in goods, services and factor incomes, it means there a surplus or a favourable current account balance. When imports exceed exports, it means there is a deficit or an unfavourable current account balance. Note that this is what is referred to as the surplus or deficit balance of payments account!

The capital account: This account records all international financial transactions in the country, the external assets and liabilities. In general it records medium and long- term capital inflows and outflows, including official reserves.

The inflows into the capital account:

- Foreign loans
- Investment by foreigners into Zambia
- Aid from donor countries
- A reduction in external reserves
- Trade in shares in Zambian investments by people based outside Zambia.
- Selling of assets that are based in other countries.

The outflows from the capital account:

- Zambians investing in other countries.
- Zambia giving aid or loans to other countries.
- Trade in shares by Zambians in investments abroad
- An increase in external reserves.
- Selling of assets based in Zambia to people based outside Zambia.

In summary, if foreign ownership of domestic assets has increased more quickly than domestic ownership of foreign assets in a given year, then the domestic country has a capital account surplus. On the other hand, if domestic ownership of foreign assets has increased more quickly than foreign ownership of domestic assets, then the domestic country has a capital account deficit.

The capital account 'finances' or 'covers' the current account, since a surplus or deficit on the current account must be 'balanced' by a deficit or surplus on the capital account respectively. If for example there is a negative or a deficit current account balance, then it must be 'financed' by inflows into the capital account and vice versa.

(c) **Advantages of Flexible Exchange Rates**

- The nation's exchange rate will adjust automatically in the foreign exchange market to correct any balance of payments deficits or surplus.
- The central bank does not need to large reserves maintain a certain exchange rate.
- Monetary policy will be more effective.
- There is no need to work out the new exchange rate because market forces of supply and demand will determine it.

Disadvantages of Flexible Exchange Rates

- Floating exchange rates lead to uncertainty in international trade and this may hinder trade with other countries.
- Floating exchange rates encourages speculation, which in turn leads to increased volatility of the exchange rates.
- Fiscal policy will be less effective.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA CERTIFICATE IN ACCOUNTANCY

CA 1.4: COMMERCIAL AND CORPORATE LAW

FRIDAY 16 DECEMBER 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 questions has only one (1) correct answer. Write the letter of the correct answer you have chosen in your answer booklet. Marks allocated are indicated against each question.

1.1 Which one of the following is the best definition for "*ratio -decidendi*" of a case?

A. The legal reasoning of a court upon which a decision was based

B. The final reasoning of a court which is binding upon the parties

C. Anything reasonable said by a court in its ruling which doesn't form part of a final decision

D. A reasoned previous decision of competent court of law

(2 marks)

1.2 Which one of the following best defines "***obiter -dictum*** "of a case?

A. The serious ruling of a court

B. Let the decision stand upon other decisions

C. Something said as a by the way

D. A matter which has been fully adjudicated upon by court

(2 marks)

1.3 Which of the following is the direct definition of tort?

A. A right to sue another person for damages

B. A civil wrong other than a claim for breach of contract

C. An infringement of the interests of a person which entitles them to compensation

D. A civil wrong involving a claim for breach of contract

(2 marks)

1.4 When bankruptcy occurs, which of these has first priority?

A. Secured creditors

B. Preferred creditors

C. General unsecured creditors

D. Employees owed wages

(2 marks)

1.5 Which of the following is not an element of the definition of a tort?

A. An act or omission of the defendant
B. An infringement of the interest of the Plaintiff
C. An infringement which the law recognizes as actionable
D. The Plaintiff proving beyond all reasonable doubt that their version of the facts is more believable. (2 marks)

1.6 Which of the following is not an essential pre-requisite for all contracts?

A. The parties must have capacity to contract
B. The parties must consent to the contract
C. The purpose of the contract must be legal
D. The contract must be in written form

(2 marks)

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

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

(2 marks)

1.8 In employment law**,** which of these is not a prohibited ground of discrimination?
A. Race
B. Being politically oriented
C. Sexual orientation
D. Redundancy

(2 marks)

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

A. The purchaser makes the contract with the vendor, even if the vendor still has something to do to put the goods into a deliverable state.

B. The purchaser notifies the vendor he is ready to receive delivery.

C. The purchaser receives delivery.

D. Passing of property has occurred.

(2 marks)

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

A. Acceptance by the principal may be implied by the principal's behaviour.

B. Ratification must occur within a reasonable time after creation of the contract.

C. The principal may accept only part of the agreement.

D. All of the above are true. (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)

Dunstan is a businessman who runs an electronics retail shop in Lusaka. To maximize on his turnover, he does both cash sales and hire purchase sales. Chibomba has gone to Dunstan's shop where he wants to buy a refrigerator. Chibomba has found a refrigerator that he likes and wants to buy it. The refrigerator however costs far more than Chibomba has. Dunstan tells Chibomba that he can take advantage of the hire purchase sales available in the shop and all he needs is to sign a hire purchase agreement. Chibomba signs it and is told to pay 30% of the purchase price and collect his refrigerator. With the refrigerator is a handbook together with a receipt. The receipt indicates that the shop gives a one year guarantee and a warranty. Two weeks after using the refrigerator, it has suddenly developed a fault and stopped working. Chibomba is upset and believes the refrigerator had a problem all along and that is why Dunstan sold it to him at the giveaway price of 30% its actual price. He wants to return the refrigerator and get back his money. He has come to you for assistance in the matter.

Required:

(a) Define a contract of sale. (2 marks)

(b) Distinguish a warranty from a guarantee. (5 marks)

(c) State what a credit sale agreement is. (3 marks)

(d) Explain to Dunstan on whether he has the right to return the refrigerator and seek refund. (10 marks)

[Total: 20 Marks]

<u>QUESTION THREE</u>

On 24 February 2021, Bell Limited advertised a house valued at K 2,000,000. The offer was open for 5 days from the date of advert. Charles called the company and he was told that acceptance was strictly by letter. He rushed to his bank to secure a credit facility for the same house. On 25 February, Banda Mayo, an employee of Bell Limited met Charles by the Mall and he informed him that the house was bought by some investor. Charles still went ahead and paid for the house and sent his acceptance letter since the offer was still open and he was assured of getting it.

Required:

(a) Placing reliance on principles of contract law, advise Charles on the legal issue at hand. (10 marks)

(b) Explain to Charles any five (5) other means of terminating an offer**.** (10 marks)

[Total: 20 Marks]

QUESTION FOUR

Belinda Lubinda owns a saloon in the Northern Province of Zambia. She is the sole proprietor of the Saloon Lubi's Beauty Parlor. However, for the past few weeks she suffered a toothache which made it impossible for her to continue managing the business. She first went to see a Dentist in Mongu where she had her tooth extracted, but since then she has suffered a severe headache. After several attempts at the same clinic to seek treatment, she developed an infection after which she was referred to the University Teaching Hospital in Lusaka. She made arrangements to travel to Lusaka, upon arrival in Lusaka she decided to go to a private clinic called Dental Star Surgery hoping to receive prompt treatment because she could not stand the queues at UTH. She underwent surgery which unfortunately resulted in the damage of one of her alveolar veins.

Due to the pain that she has suffered since the time she was in Mongu; the money she spent in total on hospital bills; and her loss of profits back home in Mongu, Belinda Lubinda is envisaging suing. However, she is not sure who to sue and under what course of action.

Required:

Advise Madam Lubinda on the following issues:

(a) Explain who will be tortious liability, the Mongu Dental Clinic or Dental Star Surgery. (10 marks)

(b) Since Madam Lubinda has suffered losses in her business due to being a sole proprietor. Advise her as to what business entity she can convert her sole proprietorship business for continuity purposes even after her death. (6 marks)

(c) Explain to Madam Lubinda the difference between her suing in the Law of Tort or Law of Contract. (2 marks)

(d) Define an employment contract. (2 marks)

[Total: 20 Marks]

QUESTION FIVE

(a) Explain how agency can be created. (8 marks)

(b) X is in the business of selling real estate. Z works for X as a sales agent and works on a commission. Z is ambitious and very desirous to start his own real estate business. Y is friends with Z and purchases property from Z for other people. Y wants to buy one of the properties belonging to X for one of his clients. The purchase price for the property is K2,500,000. Z has however connived with Y to misrepresent the purchase price to X for K2,000,000 yet the actual price paid for the property was K2,500,000. Z has kept the K500,000 and apportioned some of it to Y. X has further paid Z commission for the K2,000,000 received supposed purchase price. With that deal, Z believes he now has the capital he has been looking for to start his business and has decided to quit working for X.

X later discovers that he had in fact been duped of the K500,000 by Z. He is disappointed especially that he trusted Z so much having worked with him for quite some time. X has come to you seeking legal advice on the matter.

Required:
Advise him on the likely breach(es). (12 marks)

[Total: 20 Marks]

QUESTION SIX

(a) Jaja has just joined your law of torts class. He hears that you are the king of tort law and is desirous of knowing the following; torts of strict liability, ***res-ipsa loquitur*** and contributory negligence. Explain the three (3) terms to him. (10 marks)

(b) Define an illegal partnership at law. (5 marks)

(c) Distinguish issued capital from unissued capital. (5 marks)

[Total 20 Marks]

END OF PAPER

CA1.4 COMMERCIAL AND CORPORATE LAW

SUGGESTED SOLUTIONS

SOLUTION ONE

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

SOLUTION TWO

(a) This is an agreement where the seller agrees to sale and the buyer agrees to purchase the goods for monetary consideration called price.

(b) A warranty is a term in a contract incidental to the terms and conditions on which a contract is made. A warranty can be surmised to be a guarantee to make good a wrong in goods purchased if they fail to function or work as expected within the specified period of the warranty. Therefore, as in the case of Chibomba, a warranty guarantees him the fact that where the refrigerator he bought stopped working within a specific period as contained in the warranty, the refrigerator shall be repaired at a cost to the sellers. A warranty therefore is not the basis on which a contract is made that is, it does not constitute the basis on which the buyer was influenced to buy the refrigerator but it was simply an agreement incidental to the main agreement which influenced Chibomba to enter into the contract. Hence, breach of a warranty entitles the buyer to a repair not a refund. Section 53 of the Sale of Goods Act 1893 makes provisions for remedies on breach of warranty.
On the other hand, a guarantee is an assurance of the durability of a product bought and how that it would not fail to perform the function for which bought within the guaranteed period.

(c) A credits sale is one where the buyer of goods pays part of the purchase price or agrees to pay the purchase price at a later date but takes possession of the goods. This agreement is different from a hire purchase agreement in that, for a credit agreement, the ownership of the purchased goods transfer to the buyer immediately the sale is made. In event of a breach in a credit sale agreement, the seller is not entitled to claim repossession of the sold goods but to payment of the sale price. A buyer therefore has more an advantage under a credit sale agreement compared to a hire purchase agreement.

(d) The situation Chibomba has found himself in is governed by the Sale of Goods Act 1893. The Act makes it clear that where a purchaser of goods has accepted the goods in the manner the Act provides, they cannot reject the goods on the basis of the breach of a warranty. Under section 53 of the Act, it is provided that a buyer cannot reject the goods on account only that there was a breach of a warranty. The matter of breach of warranty was aptly considered in *Bernstein v Pamson Motors* [1987] where the court considered that, in accordance with section 35 of the Act, a car that had been purchased and driven by the buyer for 140 miles, was sufficient time for the buyer to detect the problem in the vehicle and return to the seller for purposes of seeking refund. The buyer had been with the vehicle for three weeks during which, the vehicle developed a fault and the buyer sort to reject the vehicle and get refunded. The court rejected the buyers claim holding that, the breach in the case was a warranty and that it did not entitle the buyer to rejection and refund but to repair of the vehicle in accordance with a breach of warranty. Section 53 of the Sale of Goods Act 1893 is instructive in such cases. Arising from the forgoing, the case of Chibomba is likely bound to fail on account of the provisions in section 53 of the Act and the case law cited.

SOLUTION THREE

(a) This legal issue boarder on revocation of an offer. As a general rule, an offer may be revoked at any time before acceptance but it will only be effective when the offeree learns about it. It is not necessary that the offeror himself should tell the offeree that the offer has been revoked; the information may be conveyed by a reliable third party. This legal position was fortified by the case of **Dickson v Dodds (1876)** where the Plaintiff was told by a 3rd party that the property had been sold to someone . Never the less, the Plaintiff wrote a letter of acceptance which was handed to the Defendant. The court held that as the Plaintiff had heard about the revocation from a reliable 3rd Party, the offer was no longer available for acceptance. No contract could be formed. In the case at hand, Charles had from a reliable 3rd party and as such the contract could not be formed as the offer was already revoked. Not possible to be accepted.

(b) There are a number of ways for an offer to be terminated. They are events that may occur after an offer has been made which bring it to an end so that it can no longer be accepted. An offer is terminated in the following circumstances:

- Revocation-This should not form part of the answer as it has already been discussed above.

1) Rejection: An offer can be rejected and once this is done, it terminates the offer. This happens to offers made to individuals

2) Lapse of time: Where an offer is made for a certain period of time, it lapses immediately after the lapse of that time.

3) Conditional Offer: Where an offer is made based on a condition, it terminates once there is a failure to fulfill that condition.

4) Counter Offer: A counter offer entails changes the terms of the original offer hence terminating the terms of the original offer

5) Death: Death original terminates an offer. Nevertheless, there is need to identify who is dying whether the offeror or the offeree and knowing the subject matter of the offer.

6) Acceptance: Acceptance terminates an offer because once a person acceptance the offer, there is no available offer to accept or existing.

SOLUTION FOUR

(a) There are two main institutions that can be sued in the circumstances. Firstly, the Mongu Dental Clinic or Dental Star Surgery. In determining who exactly is liable, it is important to look at the most substantive and effective cause of Madam Lubinda's injury. In determining liability in the law of tort, it is important to consider the issue of causation. This is done by making a connection between the defendants wrongful conduct and the damage suffered by the plaintiff. If the damage was caused by some other factor then the defendant will escape liability. The 'but for' test is applied. **Bernett v Chelsea and Kensignton Hospital Mnagement Committee [1969].**

Therefore, Mongu Clinic was responsible for the headache suffered by Madam Lubinda but the most effective and substantive cause of the damage to the alveolar veins was caused by Lusaka Dental Surgery. Hence Madam Lubinda must sue Lusaka Dental Surgery.
Secondly the most appropriate course of action to pursue this action is the tort of negligence, which is not taking care in particular circumstances as required by the law. The three main elements of negligence are duty of care, breach of duty and resultant damage.

(b) Madam Lubinda can covert her business to Limited Company which becomes a separate legal entity at incorporation and has perpetual succession which entails that it can outlive its shareholders even after their death. Once a company has been incorporated, its effect is that it is born and has the characteristic of an individual and can do as an individual will do. It can employ people; it can own property and enter into contracts with our entities. Therefore, the effects of incorporation will be limited liability which entails that the members upon winding up are liability only to the unpaid amounts on the shares. The effect also means that the company will have its own common seal to be used in is business transactions. It also mean that the company attains legal capacity to sue and be sued in its legal capacity or name.
Thus, this entity can continue running even the absence of Madam Lubinda. **Salomon v A. Salomon and Company (1897) AC 22** is a practical example.

(c) Liability in contract mainly arises where there is pre-existing contractual relationship where as in tort it is not necessary that there is a pre-existing contractual relationship. Secondly in the law of contract a person can recover damages from a pure economic loss, but in the law of tort there should be an injury that causes the financial loss. Hence the most appropriate branch of law she can sue under I the law of tort as her loss was not purely financial.

(d) An employment contract is a contract between an employer and an employee where an employee renders service to the employer in return for remuneration known as a salary.

SOLUTION FIVE

(a) What is agency and how is it created? Agency is a relationship that exist between a person engaged by another to act on behalf of one who engages them and they are known as agents and another who engages them and for whom they act, known as a principal. In this relationship, the agent has owed a duty to the principal to acting according to the instructions and direct Agency is created directly between the agent and principal and sometimes indirectly. The following are ways in which agency is created: Express authority, Implied authority, Apparent authority and agency by necessity.

i) Express authority – this is the type that arises where the principal appoints the agent either orally or in writing. Where the agent has been appointed to execute a function it is termed express authority.

ii) Implied authority – contrary to agency by express authority, this is agency that arise without any direct appointment by the principal but impliedly. This agency arises where the principal, though not having expressly granted the agent authority to act for them, the principal implicitly consents to an act done on their behalf by the agent. *Garnac Grain Co. v HMF Faure and Fairclough* [1967].

iii) Apparent authority – this is agency created through conduct of the principal which suggests that they have permitted the other to act for them though not having given direct authority to another to act as they would. Example is one an agent is given authority to do an act for the principal but proceeds to do a further act incidental to that which they have authority to do from the principal. The incidental act would be done under agency through apparent authority. *Freeman and Lockyer v Buckhurst Park Properties* [1964] 2 QB 480 is instructive on the matter where the Court of Appeal considered such agency to exist.

iv) Agency by necessity – this type of agency arises where the supposed agent does not have authority to act but acts to prevent damage happening to the interests of the other who becomes the principal. For this agency to arise, the court has set conditions that must exist being; a failure to get instructions from the principal, a genuine necessity and the agent acting bone fide. *Prager v Blatspiel, Stamp and Heacock Ltd 1924]* 1 KB 566.

(b) The relationship that existed between X and Z is that of agent and principal. This relationship is governed by rules where each of the parties owes a duty to the other. One of the most important duties in this kind of relationship is known as a fiduciary duty. A fiduciary duty simply means a duty of trust. This duty creates a situation of trust between the principal and the agent. Hence, the agent as one engaged by the principal to perform an act for the principal, is entrusted and becomes a trustee for the principal to act on behalf of and for the benefit of the principal. A relationship of trust created by agency forbids the agent from acting in a manner that violates this trust relationship created through agency. Among the acts of the agent that would violate the trust relationship, is where the agent's actions conflict with the interests of the principal. An act by the agent therefore that makes the agent to personally benefit from an act done for and on behalf of the principal, entails a breach of the fiduciary duty and any such benefit by the agent, should be accrued to the principal. In *Regal (Hastings) Ltd v Gulliver* [1942] UKHL1 the House of Lords held that that the directors had made their profits "by reason of the fact that they were directors of Regal and in the course of the execution of that office" and as such, they had to account for their profits to the company. Thus, under the law of agency, the agent is under a duty not to make secret profits arising from the transactions he makes for and on behalf of the principal. This duty arises notwithstanding the fact that the agent acted in good faith, that the principal did not suffer any loss or that that the agent made a profit that the principal could not have made or that the principal actually benefited from the agent's actions

In the scenario given therefore, Z was in breach of a fiduciary duty owed to X was the law demands the Z should account to X for the secret profits made arising from the transaction.

SOLUTION SIX

(a) In tort law, **strict liability** is the imposition of liability on a party without a finding of fault (such as negligence or tortious intent). The claimant need only prove that the tort occurred and that the defendant was responsible. The law imputes strict liability to situations it considers to be inherently dangerous.

Res ipsa loquitur (Latin: "the thing speaks for itself") is a doctrine in law that says in a tort or civil lawsuit a court can infer negligence from the very nature of an accident or injury in the absence of direct evidence on how any defendant behaved. Although modern formulations differ by jurisdiction, common law originally stated that the accident must satisfy the necessary elements of negligence: duty, breach of duty, causation, and injury. In res ipsa loquitur, the elements of duty of care, breach, and causation are inferred from an injury that does not ordinarily occur without negligence

Contributory negligence, in law, is **behaviour that contributes to one's own injury or loss and fails to meet the standard of prudence** that one should observe for one's own good. Contributory negligence of the plaintiff is frequently pleaded in defense to a charge of negligence.

(b) When a partnership is formed to execute illegality, such a partnership is illegal at law. When two or more persons agreed to form a business and run by them with a view to earning a profit is called partnership business. If the a partnership is formed with a purpose of which against public policy or to carry on an activity which breaks the law. Where a partnership is found to be illegal, the court will not recognize any rights of the partners between themselves. A partnership is automatically dissolved on the happening of any event that makes it unlawful for the business of the firm to be carried on.

(c) Issued share capital is **the value of shares actually held by investors**. Subscribed share capital is the value of shares investors have promised to buy when they are released. The **portion that a company does not offer for sale** is referred to as unissued. To calculate the number of unissued shares, deduct the total amount of shares outstanding and the treasury stock shares (which are the shares a company repurchased) from the authorized number of shares.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA CERTIFICATE IN ACCOUNTANCY

CA 1.5: MANAGEMENT THEORY AND PRACTICE

MONDAY 12 DECEMBER 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 in this section.

QUESTION ONE

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

1.1 A Sole proprietor concern is free from regulation by

A. Zambian Contract Act

B. Government

C. Private Indian

D. Zambian Law

(2 marks)

1.2 Bureaucracy is the Creation and work by Max Weber. Bureaucracy is another name for a:

A. Power Culture

B. Task Culture

C. Role Culture

D. Existence Culture

(2 marks)

1.3 The maximum number of persons who are legally allowed to operate in a partnership is:

A. 20

B. There is no legal limit

C. 2

D. 100

(2 marks)

1.4 Symbols in organizations can be

A. Private health insurance

B. Salary

C. Job title

D. All of the above

(2 marks)

1.5 Which of the following is not a characteristic of bureaucracy identified by Weber?

A. Specialization and division of labor
B. Selection and promotion based on seniority
C. Centralized decision making guided by strict rules and procedures
D. Separation of person and position (authority rests in position, not person)

(2 marks)

1.6 In organizations, the flow of communication sometimes slows down because there are too many:

A. Channels
B. Departments
C. Hierarchical levels
D. Managers

(2 marks)

1.7 A Director of a limited company may not be liable for wrongful trading if he or she

A. Introduced into the balance sheet an asset based on a valuation of its brands sufficient to meet any shortfall
B. Brought in some expected sales from next year into the current year
C. Increased the valuation of its inventories to cover any potential shortfall
D. Took every step to minimize the potential loss to creditors

(2 marks)

1.8 Which one of the following is an example of hygiene factors?

A. Interpersonal relations
B. A sense of achievement
C. Growth in job
D. Responsibility

(2 marks)

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

I. Tells and talks
II. Consults

III. Tells and sells

IV. Delegates

V. Involves

A. I, III, V, III, IV

B. III, I, II, IV, V

C. III, I, II, V, IV

D. II, V, IV, III, I

(2 marks)

1.10 Who argued that individuals have personal goals that they want to satisfy and that these can be satisfied.

A. David McClelland

B. Locke and Latham

C. Victor Vroom

D. Frederick Herzberg

(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).

<u>QUESTION TWO</u> – (COMPULSORY)

Numerous factors impact on the functions of Manager in an organisation. Key components include external, internal, globalization and many others. In executing these factors Managers ought to demonstrate high levels of efficiency and effectiveness in their day to day operations. From the classical scholars all the way to contemporary viewers, management and its theories and environment views have changed. From your knowledge and understanding of principles of management answer the following questions

Required:

(a) Define efficiency and effectiveness. Explain their relationship to the process of management. (4 marks)

(b) What principles did the Hawthorne Studies demonstrate to be true. (4 marks)

(c) Differentiate between closed systems and open systems. (4 marks)

(d) Briefly differentiate between the external and internal environments that organisations face. Explain why these environments are important. (8 marks)

[Total: 20 Marks]

<u>QUESTION THREE</u>

Johnson, Scholes, and Whirrington in their text "Exploring Corporate Strategy" defined strategy as "...a direction and scope of an organization over the long term which achieves advantage in a changing environment, through its configuration of resources and competences with the aim of fulfilling stakeholder's expectation..."

Required:

(a) Explain the three (3) levels of strategy within an organization. (9 marks)

(b) Explain how you can use the SWOT analysis to analyze the organization competitive position. (8 marks)

(c) Identify the model used to analyze the External Changing environment. (3 marks)

[Total: 20 Marks]

QUESTION FOUR

"A system of effective internal controls is a critical component of company management and a foundation for the safe and sound operation of organizations. However, ineffective internal controls result in ineffective programs and losses. Internal control means different things to different people. This causes confusion among business people, legislators and others." Natsha attended a workshop were the facilitator Ms Fridah Mwaba emphasized the importance of corporate governance in organization. These in-fact were described as a high-profile collapse by the Association of Certified Chartered Accountants – ACCA, (Student Accountant, 2008).

Required:

(a) List down four (4) functions of managements according to Henri Fayol. (4 marks)

(b) Briefly identify six (6) principles of good governance. (12 marks)

(c) Identify the four (4) points to consider in managing ethics at workplaces. (4 marks)

[TOTAL: 20 Marks]

QUESTION FIVE

Motivation is a state of mind, filled with energy and enthusiasm, which drives a person to work in a certain way to achieve desired goals. Motivation is a force which pushes people to work with a high level of commitment and focus, even if things are going against them. Motivation translates into a certain kind of human behavior. In short, motivation is the driving force behind human actions. There are many different forces that guide and direct our motivations. It is important to ensure that every team member in an organization is motivated.

Required:

(a) Outline five (5) various theories of motivation and state their pioneers as well. (10 marks)

(b) Discuss five (5) Key 'Leadership Skills' (10 marks)

[Total: 20 Marks]

QUESTION SIX

(a) Explain five (5) impacts of globalization on firms? (10 marks)

(b) State five (5) features of globalization and describe its impact in the world today. (10 marks)

[Total: 20 Marks]

END OF PAPER

C1.5 MANAGEMENT THEORY AND PRACTICE

SUGGESTED SOLUTIONS

SOLUTION ONE

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

SOLUTION TWO

(a) Define Efficiency and Effectiveness

- **Efficiency**: getting work done with a minimum of effort, expense, or waste.
- **Effectiveness**: accomplishing tasks that help fulfil organizational objectives such as customer service and satisfaction.

(b) Demonstrated that the workplace was more complex than previously thought, that workers were not just extensions of machines, and that financial incentives weren't necessarily the most important motivator for workers.

(c) Difference between closed and open systems

- **Closed systems**: can function without interacting with their environments or surroundings.
- **Open systems**: can function only by interacting with their environments, on which they depend on for their survival.

(d) Difference between External and Internal environments

- **External Environments**: forces and events outside an organisation that have the potential to influence or affect it. Important because it plays a critical role in shaping the future of entire industries and those of individual businesses.
- **Internal Environments**: trends and events within an organization that affect the management, employees, and organizational culture. Important because they affect what people think, feel and do at work.

SOLUTION THREE

(a) Explain the three (3) levels of strategy within an organization

(i) Corporate level strategy: concerned with the overall purpose and scope of the organization and how value will be added to the different parts of an organization.

(ii) Business level strategy: focuses on how to make decisions about how to compete in the industry.

(iii) Operational level strategy: are concerned with how the component parts of an organization deliver effectively the corporate and business strategies in terms of resources.

(b) Explain how you can use the SWOT analysis to analyze the organization competitive position

SWOT analysis brings together an organizations internal strengths and weaknesses as well as external opportunities and threats so that potential strategies can be developed.

- Strengths must be used to exploit the strategies
- Weaknesses must be improved to withstand the external world
- Opportunities can be exploited by using the organizations strengths
- Threat need to be identified and a strategy to reduce the effect of the company must be developed

(c) Identify the model used to analyze the External Changing environment.

- PESTEL or PEST Model

SOLUTION FOUR

(a) List down FOUR (4) functions of managements according to Henri Fayol

(i) Planning

(ii) Organizing

(iii) Leading (directing)

(iv) Controlling

(b) Identify SIX (6) principles of good governance

(i) Probity/Honest: relates to telling the truth and not misleading shareholders and other stakeholders.

(ii) Integrity: Being straightforward dealing and completeness. The means to to be of high moral character.

(v) Fairness: Being of a balanced leader in all litigations and administrative matters

(vi) Responsibility: Management accepting the credit or blame for governance decisions

(vii) Accountability: The organization and its directors are answerable in some way for their consequences of their action

(viii) Transparency: Being open and with clear disclosure of relevant information to shareholders and other stakeholders.

(c) Identify the FOUR (4) points to consider in managing ethics at workplaces.

i) Understand the benefits of ethical conducts

ii) Focus on ethical conduct through building strong organization culture around ethics

iii) Develop a code of ethical conduct that is documented and available to every employee of the organization.

iv) Promote process should incorporate ethics as part of the evaluation

v) Link ethics to other management practices

vi) Demonstrate ethical practices by leading by examples.

SOLUTION FIVE

(a) Various theories for motivation and the pioneers:

- Maslow's hierarchy of needs
- Herzberg's two Factor theory
- Vroom's expectancy theory
- McGregor's theory X and Y
- McClelland's theory of needs
- Likert's organizational management styles
- Adam's Equity theory
- Locke and Latham's Goal setting theory needs
- Likert's organizational management styles

(b) Leadership skills

- **Entrepreneurship**: the ability to spot business opportunities and mobilise resource to capitalise on them
- **Interpersonal skills:** such as networking, rapport building, influencing, negotiating, conflict resolution, listening, counselling, coaching and communicating assertively**.**
- **Decision- making and problem-solving skills,** including 'seeing the big picture'
- **Time management and personal organisation**
- **Self-development** skills: the ability to learn continuously from experience, to grow in self-awareness and to exploit learning opportunities

SOLUTION SIX

(a) The following are the impacts of globalization on the firm:

i. Relocation in order to reduce on costs, avoidance of tariffs and quotas or to take advantage of areas of industrial excellence.
ii. Markets new markets may emerge as closed markets as nations develop and tastes and preferences change.
iii. Competition-reduce trade barriers and advances in communications greatly increases the number of competitors that a firm faces in the industry.
iv. Alliances-opportunities for forming alliances, merging, acquiring may increase
v. Economic divisions- wealthy nations with advanced technology will become more wealthy at the expense of poorer nations

(b) The following are the features of globalization and how they impact the world today.

i. Ability to enter into transactions with individuals and organizations based in other countries
ii. Rise of globally linked and dependent financial markets
iii. Reduction in importance of local manufacturing
iv. Reduced transaction costs through developments in communication and transport
v. Rise of emerging, newly industrialized nations

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA CERTIFICATE IN ACCOUNTANCY

CA 1.6: BUSINESS COMMUNICATION

WEDNESDAY 14 DECEMBER 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 sub questions has only one (1) correct answer. Write the letter of the correct answer you have chosen in your answer booklet. Marks are indicated against each question.

1.1 Which one is **NOT** an advantage of databases?

A. Data is held once and is not duplicated in different files in different applications systems
B. It allows access to a wide range of data for management purposes
C. There is improved data consistency
D. There is improved encryption of data items

(2 marks)

1.2 Which menu tab in excel would you select for error checking?

A. Formulas
B. Data
C. Review
D. Insert

(2 marks)

1.3 Controls can be classified into three (3) types, preventive, detective and corrective. Reception of a message from MTN Zambia about a data bundle which is about to finish as you stream a video on YouTube is an example of a result of what control?

A. Preventive
B. Detective
C. Corrective
D. All of the three given responses

(2 marks)

1.4 Which device below can be used both as an input and an output device?

A. Touch screen
B. Joy stick

C. CRT

D. LCD

(2 marks)

1.5 Which of the following is not an example of different approaches that can be used by data mining software?

A. Identification

B. Authentication

C. Summarization

D. Creation of dependencies

(2 marks)

1.6 What does the abbreviation CC Stand for?

A. Carbon Copy

B. Concise Copy

C. Communication Copy

D. Clear and Concise

(2 marks)

1.7 What do we call extra information that is added at the end of a report?

A. Appendix

B. References

C. Quotations

D. Bibliography

(2 marks)

1.8 State one of the characteristics of grapevine communication.

A. It is written

B. Information may be distorted

C. It is reliable

D. It is semiformal

(2 marks)

1.9 Which of the following is **NOT** of the factors to consider when choosing the right? Medium?

A. Urgency

B. Cost

C. Confidence

D. Secrecy

(2 marks)

1.10 Which of the following is an example of lateral communication?

A. A director asking the project manager about a workshop.

B. A marketing officer making recommendation to the CEO on how to introduce a new product.

C. A human resource manager advising a financial manager on salary advances.

D. The Sales Director advising the accounts clerk in the payable department about their customer. (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)

QUESTION TWO - (COMPULSORY)

Accountants spend a lot of their time doing calculations in offices. However, Jane the Assistant Accountant in your organization was this time asked to indicate in graphic form the values of the firm assets by the General Manager. He wanted her to use diagrams graphs and pie chart and produce posters to hang in his office. It is for this reason that she approaches you as the supervisor to assist her produce neat pie charts to be displayed on the wall his office.

Required:

(a) Explain to Jane what pie charts may be used for in a company operation. (6 marks)

(b) Explain how one can produce a neat pie chart without using a computer. (4 marks)

(c) Using some of the figures for your organisation's projects as indicated by the table below:

PIGGERY	POULTRY	SOYA BEANS	FISH PONDS	ORCHARD
K20,000.00	K30,000.00	K40,000.00	K50,000.00	K60,000.00

(i) Work out the values of each project for the purpose of a pie chart (5 marks)

(ii) Draw a pie chart to represent the above portions of the organization projects. (5 marks)

[Total: 20 Marks]

QUESTION THREE

(a) Mention any three (3) things that make Transaction Processing Systems vital in an organization. (6 marks)

(b) Explain why the clock speed of the CPU and the size of the RAM critically affect the software that can be used on the system. (5 marks)

(c) Application controls are specific controls unique to each computerized application, such as payroll or order processing. Application controls can be classified as input controls, processing controls, and output controls.

Required:

Briefly explain what each of the controls mentioned above are. (9 marks)

[Total: 20 Marks]

QUESTION FOUR

(a) State any three (3) do's and three (3) don'ts of password usage. (6 marks)

(b) Explain the use of the following spreadsheet functions:

(i) =Today () (2 marks)
(ii) =Count () (2 marks)

(c) Briefly explain the meaning and significance of 'antivirus software (6 marks)

(d) List any four (4) functions of the DBMS (4 marks)

[Total: 20 Marks]

QUESTION FIVE

You work in the finance department at MKJ Limited. One new member of staff is not familiar with some meeting terminologies that were included in one of the meeting documents and wishes to learn them from you. One of the documents also had information such as; outstanding debt, cash inflows and debt collection strategies ,apologies, adoption of the agenda and Budget for the next quarter.

Required:

(a) Explain the following meeting terminologies that are not familiar to the new member of staff.

(i) Deliberations
(ii) Minutes
(iii) Quorum
(iv) Agenda
(v) Adoption (10 marks)

(b) Using the information in the scenario above, prepare a standard agenda for a meeting that will be held for the first time by the debt collection committee from your organization. (10 marks)

[Total: 20 Marks]

QUESTION SIX

Mr. Banda, one of the committee members in your organization, has been tasked to write a memo warning members of staff about late coming. The memo should include measures that have been put in place to address the situation. Unfortunately, you observed that the memo has a lot of errors and the format is wrong.

Required

(a) Write a correct memo on behalf of Mr. Banda to the intended target. Include measures to be put in place to address the late coming problem.
(14 marks)

(b) Explain the following parts of a Memo:
   (i) Subject
   (ii) Message (6 marks)

[Total 20 Marks]

END OF PAPER

CA1.6 BUSINESS COMMUNICATION

SUGGESTED SOLUTIONS

SOLUTION ONE

1.1 D

1.2 A

1.3 A

1.4 A

1.5 B

1.6 A

1.7 A

1.8 B

1.9 C

1.10 C

SOLUTION TWO

(a) Pie charts

- can be used to show relative sizes of the organisations's investments
- can be used to show the size of each budgetary allocation in relation to the others
- ca be used to show the value of each asset of the organization against other assets
- can be used to indicate sales value of the firm periodically

(b) - Using a pair of compasses , draw a circle .

-Calculate angle value of each component by putting the single value over the total and multiply by 360^o to give the equivalent in degrees.

- On the circle demarcate for each the value an angle out of the 360^o of the circle measuring using a protractor.

(c) (i) piggery 20/200 x 360^o = 36^o (10%)

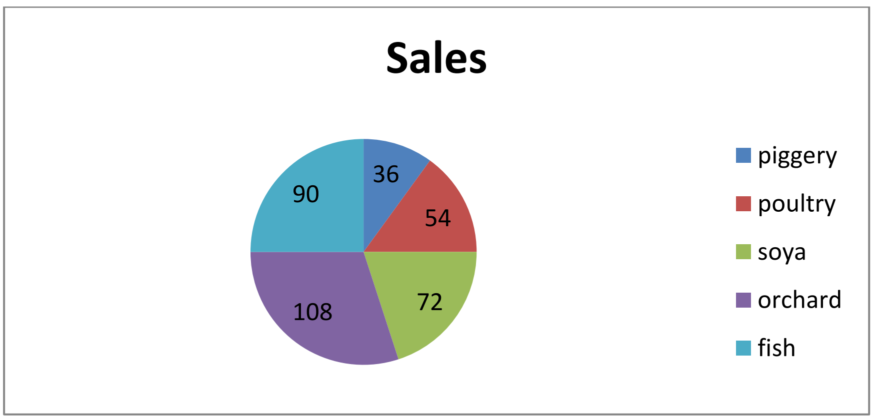
Poultry 30/200 x 360^o =54^o (15%)

Soya 40/200 x 360^o = 72^o (20%)

Orchard 60/200 x 360^o =108^o (30%)

Fish 50/200 x 360^o = 90^o (25%)

Pie chart



SOLUTION THREE

(a) TPS is vital because of:

- They gather input necessary for the other types of systems
- They facilitate and make it possible for the generation of reports for middle management
- They provide basic input into the company's databases
- They are used to offer services to both internal and external clients

(b) Different types of software require different amounts of processing power to run efficiently. The more complex the software package, the more processing power will be required to run it efficiently. The amount of RAM available to the CPU is one major factor in processing power, because significant parts of the program have to be held in RAM while the CPU accesses it. RAM is measured in megabytes (Mb), which is a million bytes, a byte is the smallest unit of storage on a system. Software packages usually specify a recommended amount of RAM for efficient operation.

Another major factor in processing power is the clock speed of the CPU. The speed of the CPU is measured in megahertz (MHz). the faster the clock speed, the greater the number of instructions per second the CPU can perform. Powerful, fast machines are required for efficient operation of complex software and for faster communication links when using the internet. Many software packages specify a recommended clock speed for efficient operation.

(c)

- **Input controls** are controls that regulate the input data to ensure it is accurate and free from error as much as possible.
- **Processing controls** are controls that are designed to ensure that processing and conversion of data is performed correctly
- **Output controls** are controls that are designed to ensure that the output of data is authorised and also as accurate and complete as possible.

SOLUTION FOUR

(a) **Password Do's**

- Change default system passwords when you receive them
- Make your password easy for you to remember but hard for someone else to guess.
- Use a combination of uppercase, lowercase, digits and punctuation characters
- Where possible use at least six characters
- Keep your password a secret
- Apply a single theme for all passwords so they are different for all services but memorable
- Change passwords frequently

Password Don'ts

- Change or use your password while someone is looking at your keyboard
- Write your passwords in a place where they may be seen or found
- Use the same passwords for all services
- Avoid using personal name, family member, Date of birth, etc

(b)

i) =Today() brings back the current system date.

ii) =Count() counts cells in the range with numeric values

(c) ***Meaning***

The term 'anti-virus software' is used to describe programs that check computer systems for known viruses. A virus is a program that is loaded onto a computer system without the user's knowledge. Most viruses can replicate themselves. Some viruses damage systems. The most dangerous viruses are capable of transmitting themselves across networks. Most anti-virus programs include an update feature, so the program can be updated to recognise and neutralise new viruses.

Significance

The anti-virus software is protect the computer system from malicious software, because it will save the company the time and expense of purchasing and installing anti-virus software. The anti-virus software must be 'active' at all times that the system is operational. All files entering the system whether via floppy disk, e-mail or the internet must be checked for viruses before being stored in the system. The anti-virus package must be regularly updated to counter new viruses.

(d) **Functions of DBMS**

- Providing controlled Access to the database
- Provides security to the data
- Provides concurrency control
- Provides recovery services
- Provides data backup services

SOLUTION FIVE

(a) Meeting terminologies.

(i) Deliberations – discussion that are done during a meeting.

(ii) Minutes – A record of the previous discussions of a meeting

(iii) Quorum – minimum number of people required for a meeting to take place

(iv) Agenda _ a list of items to be discussed during a meeting.

(v) Adoption – in agreement or in support of an idea or information

(b) **Agenda**

1.0 Opening remarks by the chairperson

2.0 Apologies of absence

3.0 Adoption of the agenda

4.0 Outstanding debt amount

5.0 Cash inflows

6.0 Debt collection strategies

7.0 Budget for the next quarter.

8.0 Any other Business

9.0 Date of next meeting

1.10Closing remarks

SOLUTION SIX

(a) **MJK LIMITED**

MEMO

To: All staff

From : The supervior

Subject : Late coming for work – punctuality

It has been observed with sadness that most members of staff report late for work and knock off very early before time. This has affected to operations of the company in a negative way. Therefore, management has decided to put measures in place in order to address this situation.

These measures include the following:

- Signing of a log book or logging in the reporting and knocking off time.
- Price rewards to staff observing punctuality every month end.
- Reduction of salaries for late comers
- Warning letters to be given to late comers
- Encouraging staff to meet their targets for each day by also encouraging punctuality

Ensure that the measures stated are put into effect. Take not of this as official notification.

Sender's signature

Mr. J. Banda

(b) i) The subject is the theme that highlights the subject of the message contained in a memo.

ii) Message is the content in the main body of the memo that details out what the memo is all about normally in itemized format.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ZAMBIA APPLICATION ADVANCED DIPLOMA IN IN ACCOUNTANCY

CA 2.1: FINANCIAL REPORTING

MONDAY 12 DECEMBER 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

(a) The following statements of financial position relate to Pigeon and Stork at 31 December 2021:

	Pigeon	Stork
Non-current assets	**K'000**	**K'000**
Property, Plant and Equipment	37,000	30,000
Investment Property	5,000	Nil
Investments	24,000	Nil
	66,000	**30,000**
Current assets		
Inventory	9,000	8,000
Other current assets	21,000	14,000
	30,000	22,000
Total assets	**96,000**	**52,000**
Equity and liabilities		
Ordinary shares (issued @ K2.50 each)	20,000	8,000
Retained earnings	26,000	16,000
	46,000	24,000
Non-current liabilities		
10% debentures	11,900	12,000
Current liabilities		
Payables	38,100	16,000
Total equity and liabilities	**96,000**	**52,000**

Additional information

(i) On 1 January 2020, Pigeon purchased 2.4 million of the ordinary shares of Stork when Stork's retained earnings balance was K11 million. There had been no movements in share capital since the acquisition. As part of the consideration given for the shares acquired, the shareholders of Stork accepted 1 million shares worth K7 million in Pigeon at acquisition. It was agreed that the remaining consideration of K12.1 million be paid on 31 December 2021. The present values of K1 receivable based on 10% which was considered to be an appropriate discount rate for Pigeon, are as follows:

In one year’s time, K0.9091

In two years' time, K0.8264

Acquisition entries had been correctly passed for the effects of all of the above, including any unwound discounts, except for the final payment made on 31 December 2021.

(ii) At acquisition, the fair values of Stork's assets, liabilities and contingencies were equal to their carrying amounts, with the exception of the following assets:

	Carrying amount	**Fair value**	
		K’000	**K’000**
Trade receivables		1,250	850
Inventory		1,500	900
Properties		14,000	17,000

The properties had a remaining useful life of 10 years. No items of properties were sold during the two (2) years to 31 December 2021. The inventory and the receivable were realised during the post-acquisition period.

(iii) On 1 January 2021, Stork sold an item of plant to Pigeon for K5 million. Stork originally bought the plant from Ostrich for K6 million, and Stork had provided accumulated depreciation of K2.2 million up to the date of sale. Stork considered the plant to have a remaining useful life of five (5) years at the date of transfer.

(iv) The Investment Property in the books of Pigeon represents an office facility that was completed on 1 January 2020 at the cost of K3.5 million. The useful economic life of the facility was estimated at 20 years. Immediately after the acquisition of Stork, Pigeon began to rent this property out to Stork under a lease agreement. Pigeon Group values its investment properties using the fair value model under IAS 40 Investment Properties and its owner-occupied properties using the cost model under IAS 16 Property, Plant and Equipment.

(v) On 1 January 2021, Pigeon acquired 30% of the ordinary shares of Raven at the cost of K6 million. During the year ended 31 December 2021, Raven reported a profit after tax of K2 million. No dividends were paid or declared by Raven during the period. At the year-end, Raven’s inventory included K1.2 million worth of goods bought from Pigeon during the year to December 2021. Pigeon charges a 25% margin on all sales.

(vi) On 31 December 2021, Goodwill acquired in Stork was attributed with an impairment loss of K0.5 million.

(vii) The group's policy is to measure non-controlling interest at the proportion of the fair value of the subsidiary's net assets.

Required:

Prepare Consolidated Statement of Financial Position for the Pigeon Group as at 31 December 2021.
(30 marks)

(b) You are a mentee on Zambia Institute of Chartered Accountants (ZICA's) three-year (3) mentorship program towards attainment of ZICA's Chartered Accountant (CA) designation. Your mentor has given you the following scenarios on ethical matters faced by accountants:

(i) The CEO of a company informed the accountant, who is a member of ZICA, to record some of the expenditure he (i.e. the CEO) made at a few restaurants, as marketing expenses. The CEO emphasised that these expenditures were incurred in meeting some important customers, but he did not provide any supporting documents. He further indicated to the accountant that the final approval on his (i.e. the accountant's) salary increment is yet to be approved by him. The accountant agreed to record such expenditure as instructed by the CEO.

(ii) A professional accountant (a member of ZICA), providing various advisory services to different types of clients, received a tax assignment that required current knowledge of mining tax laws. This accountant does not possess the necessary skills and expertise to provide the required service. However, without disclosing that fact he undertook the assignment as he could charge a nominal fee for the assignment.

(iii) A Finance Manager, who is a member of ZICA, working in a named company has selected a few listed entities for investment of the company's funds. One such entity, in which the largest investment will be made, is a key client of an advisory firm, named Cartel Advisory Solutions. The Finance Manager's wife is the owner of Cartel Advisory Solutions.

Required:

(i) Draft a report to your mentor that explains any two (2) fundamental ethical principles violated in each of the scenarios above going by the International Federation of Accountants (IFAC)'s Code of Ethics adopted by ZICA. (6 marks)

(ii) Briefly discuss any one (1) threat associated with the ethical principles violated in each of the three (3) scenarios. (4 marks)

[Total: 40 marks]

SECTION B

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

QUESTION TWO

The following trial balance relates to PROFED Ltd, an enterprise engaged in farming activities, for the year ended 31 December, 2021.

	K'000	K'000
Revenue		128,000
Purchases	75,000	
Distribution expenses	8,000	
Administrative expenses (Note ii)	22,000	
License (Note iii)	5,000	
Inventories at 1 January 2021	26,200	
Finance costs on a long term loan	3,000	
Current tax (Note iv)		200
Deferred tax (Note iv)		6,000
Dividend paid on equity shares	2,000	
Property, Plant and Equipment (PPE) - at cost (Note v)	57,000	
Provision for depreciation on PPE (31 December 2020)		10,790
Trade receivables	52,000	
Cash and cash equivalents	33,790	
Trade payables		12,000
Provision for legal costs (Note ii)		10,000
7.5% loan note		40,000
Equity share capital		50,000
Retained earnings as at 1 January 2021		27,000
	283,990	**283,990**

Additional information:

(i) The carrying value of inventories on 31 December 2021 was K23 million.

(ii) Administrative expenses include a provision of K10 million for the possible costs of a legal claim lodged against PROFED Ltd by one of its customers before 31 December 2021. The Directors of PROFED Ltd consider that it is probable that PROFED Ltd can successfully defend the case, but they are providing for the worst possible outcome on the grounds of prudence.

The provision of K10 million is for the amount sought by the customer (K9.6 million) plus the Directors' best estimate of the legal costs incurred in defending the case. If PROFED Ltd successfully defends the case, then based on the outcomes of similar cases in the past, it is likely (but not sure) that the customer will be required to reimburse PROFED Ltd for its legal costs.

(iii) On 1 January, 2021, PROFED Ltd paid K5 million for a ten-year (10) regional maize export license mainly to the neighbouring Democratic Republic of Congo (DRC).

(iv) The estimated income tax on the profits for the year to 31 December 2021 is K2.5 million. During the year, K2.2 million was paid in full and in the final settlement of income tax on the profits for the year ended 31 December 2020. The Statement of Financial Position on 31 December 2020 had included K2.4 million in respect of this tax liability. A transfer of K1.4 million is required to increase the deferred tax liability in the Statement of Financial Position; K900,000 of this amount was necessary due to the taxable temporary difference caused by the property revaluation (see note v below).

(v) The details of property, plant and equipment are as follows:

	Cost	Accumulated depreciation at 1 January 2021	Carrying Amount at 1 January 2021
Component of PPE	**K'000**	**K'000**	**K'000**
Land	12,000	Nil	12,000
Buildings	18,000	3,240	14,760
Plant and Equipment	27,000	7,550	19,450
	57,000	**10,790**	**46,210**

Estimate of useful economic life (at the date of purchase) of PPE components:

Land	–	nil (infinite life)
Building	–	50 years
Plant and Equipment	–	4 years

Depreciation of property, plant and Equipment is allocated as follows:

- 80% to cost of sales
- 10% to distribution expenses
- 10% to administrative expenses

The above allocation relates to only tangible assets. All other depreciation or amortisation charges should be fully charged to the cost of sales.

(vi) On 1 January, 2021 the Directors of PROFED Ltd decided to revalue its property (Land and Building) to its market value of K40 million, including K19.5 million for the Land. The original estimate of the useful economic life of the property was still considered valid. The Directors wish to make an annual transfer of excess depreciation from the revaluation reserve to realised profits following the revaluation.

Required:

Prepare for PROFED Ltd,

(a) The Statement of Profit or Loss and Other Comprehensive Income for the year ended 31 December 2021. (8 marks)

(b) The Statement of Changes in Equity for the year ended 31 December 2021.

(4 marks)

(c) The Statement of Financial Position as at 31 December 2021.

(8 marks)

[Total: 20 Marks]

QUESTION THREE

(a) Chameleon Tech runs a business unit in Kabwe town that has suffered a massive drop in income due to failure in its technology on 1 January 2022. As a result, the following carrying amounts were recorded in the books immediately before the impairment test.

	K'million
Goodwill	20
Technology	5
Equipment	10
Land	50
Buildings	30
Other net assets	40

The value in use of the unit is estimated at K85 million, and Chameleon has received an offer of K75 million for the unit.

The technology is worthless, following its complete failure. Other net assets include inventory, receivables and payables. It is considered that the carrying amount of other net assets is a reasonable representation of its net realisable value.

Required:

In accordance with IAS 36: impairment of assets, show the accounting treatment for the above transactions. (6 marks)

(b) IAS 8: Accounting Policies, Changes in Accounting Estimates and Errors is applied in selecting and applying accounting policies, accounting for changes in estimates and reflecting corrections of prior period errors.

Required:

Describe the procedures an entity shall apply in selecting an accounting policy. (4 marks)

(c) Discuss the matters to consider in determining whether an investment in another company constitutes an associate status. (5 marks)

(d) The IASB's Conceptual Framework identifies the fundamental qualitative characteristics of Financial Statements.

Required:

Explain how these fundamental qualitative characteristics apply to the treatment of intangible assets. (5 marks)

[Total: 20 Marks]

QUESTION FOUR

(a) ZamTrade, like many other Zambian companies, buys from overseas suppliers and sells to overseas customers. ZamTrade's transactions are often denominated in foreign currencies which are also converted into the local currency before recording in the financial statements.

In line with provisions of IAS 21: The effects of changes in foreign exchange rates:

(i) Describe what is meant by "functional currency" and contrast it with its "presentation currency". (2 marks)

(ii) State three (3) factors an entity should consider in determining its functional currency. (6 marks)

(iii) Explain what "monetary items" are. (2 marks)

(iv) Lately, the Government of the Republic of Zambia has intensified its efforts at enhancing increased economic participation of Micro, Small and Medium Enterprises (MSMEs) in the Zambian economy as evidenced by the creation of the Ministry of Small and Medium Enterprises (SMEs) in September 2021.

(v) Discuss any two (2) benefits to Zambia of a robust SMEs industry. (4 marks)

(b) Distinguish between 'Public Sector' entities and 'Private Sector' entities. (6 marks)

[Total: 20 Marks]

QUESTION FIVE

1. Morning Fresh (Pvt) Ltd (MFL) is engaged in the business of buying and selling dairy products. The following ratios are available for the company and its industry.

Ratio	Morning Fresh	Morning Fresh	Sector Averages
	FY 2021	**FY 2020**	**FY 2021**
Inventory turnover	80	55	65
Total asset turnover	0.7	0.8	0.6
Accounts receivable collection period in days	125	110	130
Debt-to-equity	0.90	0.85	0.95
Total assets to equity	1.90	1.85	1.95
Interest cover	1.35	1.85	0.85
Profit margin	12%	11.5%	12.5%

Required:

(a) Calculate the following based on the available ratios and comment on it.

(i) Return on Capital Employed (ROCE) for MFL for the financial year 2020 and 2021 (1 mark)

(ii) ROCE for the industry for the financial year 2021 (1 mark)

(b) Discuss the following areas of MFL based on the available information.

(i) Asset management efficiency (4 marks)
(ii) Solvency (4 marks)

2. Negative Goodwill is based on the accounting concept of Goodwill, an intangible asset that represents the worth of a company's brand name, patents and other intellectual property, customer base, licenses, and other items that are difficult to put an amount on but help to make a company valuable. When the price paid is less than the actual value of the company's net tangible assets, negative Goodwill results.

Required:

In accordance with IFRS 3: Business Combinations:

(a) Briefly describe what positive and negative goodwill are. (1 mark)

(b) Identify three (3) factors that account for negative Goodwill and indicate the accounting treatment for negative goodwill in the consolidated financial statements, when it occurs.
(5 marks)

3. Define 'equity', and explain why the conceptual framework does not prescribe any recognition criteria for equity. (4 marks)
[Total: 20 Marks]

END OF PAPER

CA 2.1 FINANICAL REPORTING

SUGGESTED SOLUTIONS

SOLUTION ONE

(a) Pigeon Ltd Group

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

		K'000
Assets		
Non-current assets:		
Property, plant and equipment (37,000+30,000+3,000-600-1,200+240+3,500*-350)		71,590
Investment property (5,000-3,500-1,500)		Nil
Investments (24,000-17,000-6,000)		1,000
Goodwill (W3)		750
Investment in associate (W6)		6,510
		79,850
Current assets:		
Inventory (9,000+8,000)	17,000	
Sundry other current assets (21,000+14,000-12,000)	22,900	39,900
Total assets	**119,750**	
Equity and liabilities:		
Share capital		20,000
Retained earnings (W5)		27,490
		47,490
Non-controlling interest (W4) 6,360		
		53,850
Non-current liabilities:		
10% Debentures (11,900+12,000)		23,900
Current liabilities:		
Sundry (38,100+16,000-12,100)		42,000
Total equity and liabilities		**119,750**

Workings

1. Group structure

Pigeon Ltd

2.4 million shares ÷ 3.2 million shares = 75 % Group

25% NCI

2. Net asset of Stork Ltd

	Acquisition Date	Reporting date	Post-acquisition
	K'000	**K'000**	**K'000**
Ordinary share capital	8,000	8,000	Nil
Retained earnings	11,000	16,000	5,000
Trade receivables adjustment (1,250-850)	(400)	Nil	400
Inventory adjustment (1,500-900)	(600)	Nil	600
Fair values adjustment-Property (17,000-14,000)	3,000	3,000	Nil
Additional depreciation on properties (3,000 ÷ 10 x2)	Nil	(600)	(600)
URP on Plant transfer [(5,000-(6,000-2,200)]	Nil	(1,200)	(1,200)
Depreciation adjustment – plant transfer (1,200 ÷ 5)	Nil	240	240
	21,000	25,440	4,440

3. Goodwill

Cost of investment:	
Share exchange	7,000
Deferred cash payment (12,100 ÷ 1.1^2)	10,000
	17,000
Less: Group 's share of Sub's net asset at acquisition W2 (75% x 21,000)	(15,750)
Goodwill at acquisition on 1st January 2019	1,250
Impairment loss	(500)
Goodwill at reporting date	750

4. Non-controlling interest

Share of Subsidiary's net assets at acquisition, W2 (21,000 x 25%)	5,250
Share of Subsidiary's post-acquisition movement, W2 (4,440 x 25%)	1,110
NCI at reporting date	6,360

5. Group retained earnings

Pigeon Ltd	26,000
Reversal of FV gain on investment property (5,000-3,500)	(1,500)
Depreciation on property (as owner-occupied, 3,500 ÷ 20 x 2 years)	(350)
URP on goods (30% x 25% x 1,200)	(90)
Share in Subsidiary's post-acquisition earnings (75% x 4,440)	3,330
Impairment loss	(500)
Share in Associate's post-acquisition earnings (30% x 2,000)	600
	27,490

*Under IAS 40 Investment property, property rented to a parent, subsidiary or fellow subsidiary is not investment property in consolidated financial statements that include both the lessor and the lessee because the property is owner-occupied property from the perspective of the group. The property will therefore be presented as Property plant and equipment.

6. Investment in Associate

Cost of investment	6,000
Share in Associate's post-acquisition earnings (30% x 2,000)	600
URP on goods (30% x 25% x 1,200)	(90)
Value of Associate at reporting date (to CSFP)	6,510

(b) REPORT

To : Mentor

From : Mentee

Date : Examination Date

Subject : Discussion of fundamental ethical principles violated in given scenarios plus associated threats thereof

1. (i) Fundamental ethical principles violated
    - Integrity: The accountant recording expenditure without supporting explanations cannot be considered as being honest and fair.
    - Objectivity: The accountant cannot demonstrate that he did not allow bias, conflict of interest.
    - Professional competence and due care: Allowing an expense to be processed without supporting explanation cannot be considered as acting with due care and diligence.
    - Professional behaviour: By doing this, the accountant discredits the profession.

   (ii) Ethical threats
    - Self-interest: A self-interest threat occurs when a financial or other interest inappropriately influences the accountant's judgement or behaviour. In this case, the accountant's salary increment has influenced his behaviour.
    - Intimidation: This results from the undue influence of the CEO.

2. (i) Fundamental ethical principles violated
    - Integrity: The accountant undertaking the assignment without disclosing the fact that he lacks the required skills and expertise, cannot be considered as being honest and fair.
    - Professional competence and due care: Accepting work without having the necessary skills and knowledge cannot be considered as acting with due care and diligence.
    - Professional behaviour: By doing this, the accountant discredits the profession.

(ii) Ethical threats
  - Self-interest: A self-interest threat occurs when a financial or other interest inappropriately influences the accountant's judgement or behaviour. In this case, the fee for the assignment has influenced his behaviour.

3. (i) Fundamental ethical principles violated

- Integrity: The finance manager selecting a company for investment of the company's funds, due to the financial advantage his wife has, cannot be considered as being honest and fair.
- Objectivity: The finance manager cannot demonstrate that he did not allow bias, conflict of interest.
- Professional behaviour: By doing this, the accountant discredits the profession.

(ii) Ethical threats

- Self-interest: A self-interest threat occurs when a financial or other interest inappropriately influences the accountant's judgement or behaviour. In this case, the financial advantage to his wife has influenced his behaviour.
- Advocacy: This threat occur as the finance manager is promoting the employer to a point where his objectivity is compromised (i.e. by promoting shares of a listed entity that is a client of his wife).

SOLUTION TWO

(a) PROFED Ltd
STATEMENT OF PROFIT AND LOSS AND OTHER COMPREHENSIVE INCOME FOR THE YEAR ENDED 31ST DECEMEBER, 2021

	K'000
Revenue	128,000
Cost of sales (W3)	(84,500)
Gross profit	43,500
Distribution costs (W3)	(8,725)
Administrative expenses (W3)	(13,125)
Operating profit	21,650
Finance costs	(3,000)
Profit before tax	18,650
Taxation (W8)	(2,800)
Profit after tax	15,850
Other comprehensive income:	
Gain on revaluation of property (13,240-900), (W5)	12,340
Total comprehensive income	28,190

(b) PROFED Ltd
STATEMENT OF CHANGES IN EQUITY FOR THE YEAR ENDED 31ST DECEMEBER, 2021

Share Capital **K'000**	Revaluation Reserve **K'000**	Retained Earnings **K'000**	Total **K'000**	
Balance at 1 January, 2021	50,000	Nil	27,000	77,000
Gain - property revaluation (W5)	Nil	12,340	Nil	12,340
Net profit for the year	Nil	Nil	15,850	15,850
Transfer of realized profits (W6)	Nil	(140)	140	Nil
Dividends paid	Nil	Nil	(2,000)	2,000
Balance at 31 December, 2021	50,000	12,200	40,990	104,190

(c) PROFED Ltd
STATEMENT OF STATEMENT OF FINANCIAL POSITION AS AT 31ST DECEMEBER, 2021

		K'000
Assets		
Non-current assets		
Property, plant and equipment (W7)	52,200	
Export license (5,000-500) (W1)	4,500	
	56,700	
Current assets		
Inventories	23,000	
Trade receivables	52,000	
Cash and Cash equivalents	33,790	
	108,790	

Total assets		**165,490**
Equity and liabilities		
Capital and reserves	50,000	
Share capital	12,200	
Revaluation reserve	40,990	
Retained earnings		103,190
Non-current liabilities		
Long-term loan	40,000	
Deferred tax (W9)	7,400	
	47,400	
Current liabilities		
Trade payables	12,000	
Taxation	2,500	
Provision for legal costs (W2)	400	
	14,900	
Total equity and liabilities		**165,490**

Workings:

1. In accordance with IAS 38: Intangible assets, the K5 million paid for the export license should be capitalised at cost as an intangible non-current asset and amortised over its useful economic life of 10 years. Therefore, there should be a charge to income of K500,000 in the current year.

2. The provision for legal costs of K9.6 million sought by the customer is only a present obligation arising out of a past event if the case went against PROFED Ltd. Based on the scenario in the question, it is improbable that the case will be lost so the recognition criteria laid down in IAS 37: Provisions, Contingent Liabilities and Contingent Assets; are not met. Therefore, the K400,000 is possibly recoverable from the customer, but IAS 37 only allows recognition of potential reimbursements if such is virtually certain. Thus, K400,000 should remain in administrative expenses, and the K9.6 million should be reversed.

3. **Allocation of operating expenses**

of	**Cost Distribution sales K'000**	**Administrative cost K'000**	**expenses K'000**
Opening inventory	26,200	Nil	Nil
Expenses per Trial Balance	75,000	8,000	22,000
Closing inventory	(23,000)	Nil	Nil
Legal provision reversed (W2)			(9,600)
Depreciation/Amortisation charges:			
- Buildings (W4)	400	50	50
- Plant (W4)	5,400	675	675

- Intangible asset (W1)	<u>500</u>	<u>Nil</u>	Nil
Total to the income statement	<u>84,500</u>	<u>8,725</u>	<u>13,125</u>

4. Depreciation of non-current assets

NB: The building was purchased on 1 January 2012 and revalued on 31 December 2020, so it was nine years old when it was revalued. The remaining useful economic life at the revaluation date is estimated at 50–9 = 41 years. Depreciation after the revaluation is charged on revalued amount.

	K'000
Buildings – (1 ÷ 41 x (40,000-19,500))	500
Purchased plant and equipment – (1 ÷ 4 x 27,000)	6,750
Intangible asset (W1)	<u>500</u>
Total depreciation for the period	<u>7,750</u>

5. Gain on revaluation of property	**K'000**
Revalued amount as given	40,000
Carrying value prior to revaluation (30,000 – 3,240)	<u>(26,760)</u>
Gain on revaluation (before tax)	13,240
Related deferred tax (note (iv) per question)	<u>(900)</u>
Revaluation surplus included in equity	<u>12,340</u>

6. Transfer of realised profits	**K'000**
Depreciation charged on revalued amount	500
Depreciation based on original cost (1 ÷ 50 x 18,000)	<u>(360)</u>
	<u>140</u>

7. Property, plant and equipment

	Land and building	**Plant & Equipmt Purchased**	**Total**
	K'000	**K'000**	**K'000**
Cost at 1 January 2021	30,000	27,000	67,000
Accumulated depreciation – 1 January 2021	<u>(3,240)</u>	<u>(7,550)</u>	<u>(7,550)</u>
Carrying amount at 1 January 2021	26,760	19,450	59,450
Gain on revaluation	<u>13,240</u>	<u>Nil</u>	<u>Nil</u>

Revaluation at 1 January 2021	40,000	19,450	59,450
Depreciation charge to income statement (W4)	(500)	(6,750)	(7,250)
Carrying amount at 31 December 2021	39,500	12,700	52,200

8. Income tax expense

	K'000
Estimate on the profits of the current year	2,500
Overprovision in the previous year	(200)
Deferred tax related to P/L (1,400 – 900)	500
Charge for the year	2,800

9. Deferred tax

	K'000
As per Trial Balance	6,000
Transfer for the period	1,400
As per the closing statement of financial position	7,400

SOLUTION THREE

(a) The carrying amount is K155 million, and the recoverable amount is K85 million, the value in use. Therefore, an impairment loss is K(155-85) million = K70 million.

Chameleon Tech should recognise an impairment loss of K70 million in the statement of profit or loss and allocate the K70 million to its assets in the following order (W1 & W2):

Asset	**Carrying amount K'million**	**Amount to be written off K'million**	**Amount to Statement of financial position K'million**
Goodwill	20	(20)	0
Technology	5	(5)	0
Equipment	10	(5)	5
Land	50	(25)	25
Buildings	30	(15)	15
Other net assets	40	(0)	40
Total	**155**	**(70)**	**85**

Working 1

Allocation of impairment loss	**K'million**
Total impairment	70
Technology	(5)
Goodwill	(20)
Net to be allocated	45

Working 2

Pro-rate based on carrying amount		
Equipment	45 x 10 ÷ (10+50+30)	(5)
Land	45 x 50 ÷ (10+50+30)	(25)
Buildings	45 x 10 ÷ (10+50+30)	(15)
Other net assets		0
		45

(b) In selecting its accounting policies, an entity must first refer to the IFRS or interpretation of the IFRS that deals specifically with that situation.

If no specific IFRS applies to a transaction, other event or condition, management must use its judgment in developing and applying an accounting policy that results in information that is relevant and reliable. In making that judgment, management must refer to and consider the applicability of the following sources in descending order:

- the requirements and guidance in IASB standards and interpretations dealing with similar and related issues; and the definitions, recognition criteria and measurement concepts for assets, liabilities, income and expenses in the Framework.

- Management may also consider the most recent pronouncements of other standard-setting bodies that use a similar conceptual framework to develop accounting standards, other accounting literature and accepted industry practices to the extent that these do not conflict.

(c) IAS 28 Investments in Associates and Joint Ventures defines associates. For an investment to be classified as an investment in an associate, the investor must have 'significant influence' over the investee. Significant influence is presumed to exist with a holding of 20% or more but less than 50% of the voting power unless the investor can clearly demonstrate that this is not the case. Conversely, a holding of less than 20% is presumed not to be an associate unless it can be clearly proved that the investor has significant influence. The voting rights can be held directly or through subsidiaries.

IAS 28 says that a majority holding by one investor does not preclude another investor from having significant influence. An investing company owning a majority holding in another company normally has control over the investee and would thus class it as a subsidiary. In normal circumstances, it is difficult to see how a company could be controlled by one entity and be significantly influenced by a different entity unless 'control' was passive. The 20%+ test is not definitive and the following other evidence should be considered.

Does the investing company:

- Have representation on the Board of the investee?
- Participate in the policy-making processes (operational and financial) or have material transactions with the investee?
- Interchange managerial personnel with the investee; or provide technical expertise to the investee?

(d) *Explanation of how fundamental qualitative characteristics apply to treatment of intangible assets*

The choice of the revaluation model as a measurement model in IAS 38, Intangible Assets provides relevant information by showing up-to-date values. This will assist users' understanding of what the entity's underlying assets are actually worth. To assist with *comparability* if the revaluation model is applied, all valuations must take place at the same time for a class of intangible assets. However, not all intangible assets can be revalued because there may be no active market for them, so it is not always possible to apply the revaluation model to the entire class of assets and therefore comparability may be compromised.

Although the revaluation model provides more relevant information to users, this information can be seen as a less *faithful representation* than the cost model. The cost model is based on historical costs that are not the most relevant costs to base future decisions. However, historical cost is based on fact and is, therefore, a faithful representation. The strict recognition criteria in IAS 38 set out what can be included as part of an intangible asset's cost, which aids verifiability of the final figure. IAS 38 contains rigid and robust rules for the capitalisation of intangible assets which means that financial statements of different companies can be compared as they are prepared on the same basis. IAS 38 also facilitates comparability between companies by requiring disclosure of accounting policies, such as amortisation policy and measurement bases.

It also requires the disclosure of both brought forward and carried forward figures, aiding comparability between consecutive years.

IAS 38 allows comparability between the cost and revaluation model to ensure that companies' financial information can be paralleled no matter which measurement basis is applied. This comparability is attained by disclosure of equivalent cost information under revaluation model.

To improve *understandability* IAS 38 requires disclosures to be provided for each class of intangible asset. This provides information on what types of intangible assets have been purchased or sold during the year. The table format required by IAS 38 also assists users' understanding by showing movements during the year.

SOLUTION FOUR

(a) (i) An entity's functional currency is the currency of the primary economic environment in which it operates. In most cases, this is the currency of the country in which it is located; whereas an entity's presentation currency is the currency in which its financial statements are presented.

(ii) According to IAS 21, an entity should consider the following factors in determining its functional currency:

- The currency that mainly influences sales prices for goods and services (often the currency in which prices are denominated and settled).
- The currency of the country whose competitive forces and regulations mainly determine the sales prices of its goods and services.
- The currency that mainly influences labour, material and other costs of providing goods or services (often the currency in which prices are denominated and settled).

(iii) Monetary items are units of currency held, and assets and liabilities to be received or paid in a fixed or determinable number of units of currency.

(iv) **Any FOUR benefits of a robust SMEs industry.**

Small and Medium Enterprises cut across all sectors of Zambia's economy and provide one of the most prolific sources of employment and wealth creation and are a breeding ground for industries.

The development of Small, and Medium Enterprises (SMEs) is viewed as one of the sustainable ways of reducing the levels of poverty and improving the quality of life of households through wealth and job creation.

The contribution of SMEs to economic growth and sustainable development is now widely acknowledged. SMEs are believed to deepen the manufacturing sector, foster competitiveness and help in achieving a more equitable distribution of the benefits of economic growth, thereby help in alleviating some of the problems associated with uneven income distribution.

SMEs achieve this by generating more employment for limited capital investment, acting as a 'seedbed' for the development of entrepreneurial talent, playing and supplying the lower income groups with inexpensive consumer goods and services.

SME also act as a buffer in times of economic recession. Zambia recognised the need to diversify her economy and reduce over-dependency on mining exports. The preferred strategy was production of non-traditional export products and creation of Small and Medium Enterprises. This approach encouraged firms to produce for the domestic market, however, the capacity to grow and to export was still very limited.

(b)

	PUBLIC SECTOR	**PRIVATE SECTOR**
1.	Entities under the control of government, whether it is central, state or local.	Entities are owned and controlled by private individuals or companies

2.	Have objective of serving the citizens	Have objective of making profit.
3.	Raises money from public revenue like tax, duty etc	Raises money through issuing shares and loan notes
4.	Preparation of accounts guided by International Public Sector Accounting Standards (IPSAS).	Preparation of accounts guided by International Financial Reporting Standards (IFRS).

SOLUTION FIVE

1. (a) ROCE – Profit margin x Asset turnover

Morning Fresh (Pvt) Ltd ROCE for 2021 = 12.0% x 0.7
8.40%

Morning Fresh (Pvt) Ltd ROCE for 2020 = 11.5% x 0.8
9.20%

Industry ROCE for 2021 = 12.5% x 0.6
7.50%

The ROCE of the company for 2019 has come down compared to 2020 mainly due to the lower asset turnover despite the improved profit margin. However, the asset turnover of the industry is still lower than that of the company. Hence, the ROCE of the company for 2021 is slightly higher than the ROCE of the industry, although the profit margin is not as good as the industry average.

(b) Discussion of company asset management efficiency and solvency

Asset management efficiency

Inventory turnover has increased compared to 2020 and it is now above the industry average. This is commendable since dairy products are naturally perishable with a short shelflife. In 2021 it means that every 4.5 days (365 ÷ 80) the company is able to sell its inventories as opposed to the industry average of 5.6 days.

Accounts receivable collection period have gone up compared to 2020, but it is still better than the industry average. So, while the company is able to turn inventories around quickly, it seems to have trouble collecting the sales (although it is doing better than the industry). This may be due to achieving sales targets on credit sales through no or low-quality credit evaluations.

The total asset turnover has reduced compared to 2020, but it is still higher than the industry average. This reveals potential problems in the company's long-term investments such as having idle or redundant assets without them being efficiently used in the revenue generation process. Nevertheless, the company is still doing better than the industry.

Solvency

Both the equity multiplier and the debt-to-equity ratio tell us that the company has become more levered. From the given numbers it is hard to give a qualitative judgement beyond observing the drop in leverage. However, a higher leverage imposes additional pressure on the company's profitability in an economic downturn.

Interest cover of the company in 2021 has come down compared to 2020, and this is due to the additional pressure on profitability as a result of further borrowings. However, the interest cover of the company is significantly higher than the industry average.

2. (a) Brief description of both positive and negative goodwill

Where the cost of the business combination is greater than the net assets acquired, the investor has paid for something more than the net assets of the acquired business. The difference is called goodwill and is measured in accordance with (IFRS 3: Business Combinations - revised). Purchased goodwill is positive when the cost of investments exceeds the net fair value of identifiable assets, liabilities and contingent liabilities. In accordance with IFRS 3; Business combination, negative goodwill occurs when the acquired net assets exceed cost of investment.

(b) Factors that account for a negative goodwill and treatment of negative goodwill

1. The acquirer may be good in the negotiations of the purchase consideration than the acquiree.
2. The acquiree has no knowledge of the value of its business before and during the sale transaction
3. The acquiree is desperate to sell in a force sale transaction

Accounting treatment of purchased goodwill

Positive purchased goodwill is capitalised on the consolidated statement of financial position and subject to an impairment test annually. Subsequent impairment test is charged to profit or loss as expenses. Impairment tests are conducted at least at each year end. Any resulting impairment loss is first recognized against consolidated goodwill. However, purchased goodwill if negative is not capitalized since it represents a gain to the acquirer and hence IFRS3 business combination requires that it is recognized in the statement of profit or loss immediately after the reassessment
and confirmation.

3. The conceptual framework defines equity as 'the residual interest in the assets of the entity after deducting all its liabilities'.

Equity cannot be identified independently of the other elements in the statement of financial position. The characteristics of equity are that equity is a residual, i.e. something left over after the entity has determined its assets and liabilities. In other words: Equity = Assets less Liabilities.

There is no need for recognition criteria for equity as it is residual, determined after recognition criteria are applied to the other elements. In other words, the recognition of assets and liabilities will inevitably lead to recognition of equity.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ZAMBIA APPLICATION ADVANCED DIPLOMA IN ACCOUNTANCY

CA 2.2: MANAGEMENT ACCOUNTING

TUESDAY 13 DECEMBER 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)

New Horizon Plc (NH plc) opened a new division on 1 January 2021. The division, Colour Rite Ltd (CR Ltd), produces a special paint finish. Because of the technology, there can never be any work in progress. The original budget was developed on the assumption that there would be a loss in the initial year of operation and that there would be no closing inventory of finished goods.

One (1) year later, CR Ltd prepared its results for the first year of operations. The chief executive of NH Plc, Alice Mwale, was pleased to see that, despite budgeting for an initial loss of K16,000, the division had actually returned a profit of K148,800. As a result, the Directors of CR Ltd were entitled to a substantial bonus. Details of the budget and actual results are reproduced below.

Colour Rite Ltd
Operating Results for the year ended 31 December 2021

	Budget		**Actual**	
Sales volume(units)	40,000		44,000	
	K'000	K'000	K'000	K'000
Sales revenue		1,920		2,024
Direct costs				
Materials	480		523.6	
Labour	520		480.48	
Energy costs	136		131.12	
	1,136		1,135.20	
Fixed overheads	800		740	
Cost of sales		(1,936)		(1,875.20)
Operating profit/loss		(16)		148.8

You are employed as a Management Accountant in the head office of NH plc and have been asked to comment on the performance of CR Ltd. Attached to the budget and actual results were the relevant working papers. A summary of the contents of the working papers is reproduced below.

- The budget assumed no closing finished inventory. Actual production was 50,000 units and actual sales were 44,000 units.
- Because of the technology involved, production employees are paid per week, irrespective of production levels. The employees assumed in the budget are capable of producing up to 52,000 units.
- The cost of material varies directly with production.
- The cost of energy (light, heat, and power) includes a fixed standing charge. In the budget this fixed charge was calculated to be K40,000 per year. However, competition resulted in the supplier reducing the actual charge to K24,000 for the year.
- During the year, CR Ltd produced 50,000 units. The 6,000 units of closing finished inventory were valued on the basis of direct cost plus 'normal' fixed overheads.

The number of units was used to apportion direct costs between the cost of sales and closing inventory stock.

The budgeted fixed overhead of K40 per unit was used to calculate the fixed overheads in the closing finished inventories.

The detailed composition of the cost of sales and closing inventories using these policies was as follows:

	Closing finished inventories	**Cost of sales**	**Cost of production**
	K'000	K'000	K'000
Material	71.40	523.60	595
Direct labour	65.52	480.48	546
Energy costs	17.88	131.12	149
Fixed overheads	120	740	860
	274.80	1,875.20	2,150
Units	**6,000**	**44,000**	**50,000**

Required:

(a) Prepare a flexible budget statement for the operating results of CR Ltd using a marginal costing approach, identifying fixed costs for the year and showing any variances.
(20 marks)

(b) You present your flexible budget statement to the Chief Executive Officer (CEO) of NH Plc who is concerned that your findings appear different to those in the original operating results. Write a brief memo to the CEO. In your memo, you should do the following:

(i) Give two (2) reasons why the flexible budget operating statement shows different results from the original operating results.
(4 marks)

(ii) Give one (1) reason why the flexible budget operating statement might be a better measure of management performance than the original operating results.
(2 marks)

NH Plc used marginal costing principles in preparing the flexible budgets.

Required:

(c) Explain the advantages of marginal costing as the basis of providing managers with information for decision making. (4 marks)

(d) NH Plc produces four other poducts (apart from the special paint), namely, products A, B, C and D. They are hand crafted and, therefore, labour intensive. Labour is skilled and a maximum of 7,380 hours of handcrafting time is available in the month of June 2021.

Budgeted information is provided as follows:

Product	A	B	C	D
	K Per unit	K per unit	K per unit	K per unit
Selling price	46.60	50	75	70
Direct material	4	5	10	16
Direct labour	10	10.40	15	13
Variable overheads	6	6.4	12	8
Fixed overheads	8	8	14	12
Labour hours required	4 hours	6 hours	5 hours	6 hours
Machine hours required	0.5 hrs	0.3 hours	0.6 hours	1 hour
Maximum demand	600 units	300 units	540 units	240 units

Budgeted fixed costs are K17, 640.

Required:

(i) Determine the production plan which will maximize profit during June 2021 and the resulting profit from this plan. (7 marks)

(ii) Calculate the minimum price that the company should quote to the customer who has asked NH Plc to quote a price to supply 200 units of product B.

(3 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt any THREE (3) questions in this section.

QUESTION TWO

Sally Foods Ltd (SFL), provides catering services to both corporate and individual clients. SFL had increased business activities in the past year. The company is currently managed by its founding partner, Salome Musalale. At a recent management meeting, Salome, mentioned the need to control cost so as to improve financial performance. The Accountant suggested that financial performance could be improved if the company replaced its existing absorption costing approach with an Activity-Based Costing (ABC) system. He said that the introduction of ABC would lead to better cost control and increased profit margins. SFL currently uses cost-plus approach to set prices on its services.

Required:

(a) Describe the key features of Activity-Based costing (ABC). (4 marks)

(b) Discuss the advantages and disadvantages of adopting an activity-based costing (ABC) technique. (10 marks)

(c) Explain the limitations of using the cost-plus pricing approach in SFL. (6 marks)

[Total: 20 Marks]

QUESTION THREE

Bova Furniture (BF Ltd) is preparing a quotation for the supply of a quantity of specific home furniture for a renowned public figure that owns a big company which imports a significant amount of office furniture from China. BF Ltd management is hopeful that if they get this job for the home furniture, they might increase their chances of winning a contract to manufacture office supplies for the company.

Competition is fierce and the quotation therefore has to be very competitive. The following information has been made available to enable the quotation to be prepared:

1. Direct materials: Only some of the raw material is currently available in inventory. This was purchased 2 years ago at a cost of K15,000. If this material is not used on this order it will be scrapped at a price of K11,500. The remaining material required will be purchased at a cost of K18,000.
2. Other materials: All of the required quantity is in inventory and cost K11,200. If this is not used on the order it can be used on other work. The cost of replacing the materials would now cost K11,350.
3. Direct labour: K18,000 represents the cost of direct labour in respect of this order. If it is not utilised on this order the direct labour will be idle and be entitled to 50% of their normal pay in order to retain them.
4. Supervisor's salary: The share of the supervisor's salary for the number of days in which production of the order will take place is K12,000.
5. Depreciation: The value of depreciation on the equipment used by BF Ltd for the duration of this order would amount to K12,000.
6. Electricity: This order will require additional electricity costing K15,500

7. General overheads allocation: The apportionment of overheads based upon the number of machine hours required for this order will amount to K17,500 BF Ltd requires a profit margin of 10% on selling.

Required:

(a) Prepare for BF Ltd a quotation for the supply of specific furniture using minimum pricing including an explanation for the treatment of each of the above seven (7) elements of cost. (14 marks)

(b) Describe three (3) factors that should be considered before deciding whether or not to investigate a variance. (6 marks)

[Total: 20 Marks]

QUESTION FOUR

Seven Days Enterprises (SDE) brews a local beverage known as 7D. Brewing 7D involves two (2) production processes: mixing and fermentation. All of the ingredients are added in the mixing process and combined thoroughly. Next, the 7D mix is made to ferment and later on packed in small sachets. SDE has adopted process costing based on the weighted average approach to value the 7D. Cost and other information relating to both processes for the month of September are provided below.

	Mixing	Fermentation
Opening work in progress at 1 September(litres)	20,000	32,000
- Material	K48,400	K86,260
- Labour and production overhead	K13,848	K71,580
Costs incurred during the month		
- Materials input 80,000 litres	K217,600	Nil
- Direct labour cost	K169,200	K90,300
- Production overhead	K62,040	K29,640
Transferred from mixing to fermentation process(litres)	82,000	n/a
Transferred from fermentation process to packaging(litres)	n/a	112,000
Normal loss expected (% material input in the month)	5%	Nil
Scrap value	K0.5/ litre	Nil
Closing work in progress at 30 September(litres)	12,000	Nil

Additional information

1. All materials are added immediately in the mixing process. The opening work in progress in the mixing process at 1 September was 60% complete in relation to labour and overheads. At 30 September it was 40% complete in relation to labour and overheads.
2. The opening work in progress in the fermentation process at 1 September was 50% complete.

Required:

(a) Prepare the following accounts, for the month of September. You should ensure that all workings are shown clearly:

(i) Mixing process account (7 marks)
(ii) Fermentation process account (6 marks)

(b) Explain the meaning of the following terms:
(i) Overhead Allocation (2 marks)
(ii) Overhead Apportionment (2 marks)

(c) Explain three (3) reasons for using absorption costing (3 marks)

[Total: 20 Marks]

QUESTION FIVE

Mango Juice Limited has developed a new product. The sales and marketing department has estimated the following:

Selling price per unit	K20,000
Variable cost per unit	K12,000
Annual demand (units)	10,000
Fixed costs	K96,000,000

Mango Juice limited has been advised on what would happen to demand if the selling price is set above or below K20,000 as follows:

(i) If selling price is set above K20,000, sales demand would fall by 500 units for every K500 increase in selling price.
(ii) If selling price is set below K20,000, sales demand would increase by 500 units for every K500 reduction in selling price.

Required:

(a) Determine the price that will maximize the profit for Mango Juice limited given that:

Price (P) = a - bQ and
Marginal Revenue (MR) = a – 2bQ

(10 marks)

N.B. Alternatively, candidates may use the tabular approach to determine the profit maximizing price. Either method is acceptable.

(b) Calculate the breakeven point in units. (4 marks)

(c) Compute the Breakeven Point in sales revenue. (2 marks)

(d) Explain two advantages and two (2) disadvantages of cost volume profit analysis. (4 marks)

[Total: 20 Marks]

END OF PAPER

CA2.2 MANAGEMENT ACCOUNTING

SUGGESTED SOLUTIONS

SOLUTION ONE

a)

Flexible Budget Statement for the Year Ended 31 December, 2021

	Flexible	Budget		Actual	Results		Variance
Sales units	44,000			44,000			
	K'000	K'000		K'000	K'000		K'000
Sales Revenue(xK48)W.1		2,112			2,024		88(A)
Variable costs							
Material(xK12)W.2	528			523.6			4.4(F)
Energy costs(xK2.4)W.3	105.6			110(W6)			4.4(A)
		(633.6)			(633.6)		
Contribution		1,478.4			1,390.4		
Fixed Costs							
Labour	520			546			26(A)
Energy costs	40			24			16(F)
FOH	800			860			60(A)
		(1,360)			(1,430)		
Net Profit/(loss)		118.40			(39.6)		158(A)

Workings

W.1 Budgeted selling price per unit: K1,920/40 = K48

W.2 Budgeted material cost: K480/40 = K12

W.3 Budgeted Marginal cost of energy costs: (K136-K40)/40 =K2.4

W.4 Actual marginal cost of energy costs: (K149-K24)/50 = K2.5

W.6 Actual variable cost of energy costs: K2.5 x 44,000 units = **K110,000**

b) **MEMORANDUM**

To: Chief Executive Officer, NH plc

From: Management accountant

Date: 31 December 2021

Subject: **Flexible budget statement for year ended 31 December 2021**

This memorandum addresses your concerns regarding the results shown in the flexible budget statement.

i) **Why the flexible budget operating statement shows different results from the original results**

- The flexible budget is prepared on a marginal cost basis whereas the original budget and actual results were prepared on an absorption cost basis.

Since production was higher than sales, some fixed overhead was carried forward in inventories with absorption costing. With marginal costing, however, all of the fixed overheads are charged as period costs against the sales for the period, resulting in a lower reported profit figure.

- The flexible budget is a realistic target for costs and revenues for the actual activity level of 44, 000 units sold. The 4,000 units sold in excess of the original budgeted amount would be expected to increase both revenue and variable costs. The flexible budget makes allowances for these increases caused by the change in volume.

ii) **Why the flexible budget operating statement might be a better measure of management performance**

The flexible budget statement compares like with like. When the activity level changes, the expected revenue and variable costs also change. It is therefore logical to alter the budget to allow for these changes. The resulting variances will provide a better measure for management performance.

Furthermore the profit shown in the original statement, which was prepared on an absorption costing basis, can be distorted by increases or decreases in inventory, as fixed overheads are carried forward in, or 'released from', inventory. The use of marginal costing, however, avoids such profits distortions.

c) The advantages of using marginal costing are as follows:

(i) Marginal costing is based on cost behaviour patterns, the key principle being that contribution will vary in proportion to the units sold. Hence, marginal costing demonstrates clearly how cash flows and profits will be affected by changes in sales volume.

(ii) Using marginal costing means that fixed costs that relate to a period of time are matched against the period by being charged against the period's revenues.

(iii) Marginal costing situations can be shown easily and clearly on graphs.

(iv) Use of marginal costing will help in short-term pricing decisions concerning incremental profits. It will also help in setting a buffer inventory level. Buffer inventory must be valued at marginal cost since fixed costs have not been incurred to produce a marginal quantity of finished goods that are unsold at the end of the period.

Signed: Management Accountant

d) (i) **Production plan which will maximize profit during June 2021 resulting profit from this plan.**

Step 1: Confirm limiting factor

Product	Demand	DLH/unit	Total hrs
A	600	4	2,400
B	300	6	1,800
C	540	5	2,700
D	240	6	1,440
		Required hours	8,340
	Available hours		7,380
	Shortfall hours		960

Conclusion: direct labour hours are a limiting factor.

Step 2: Computation of contribution per limiting factor and ranking

	A	B	C	D
	K	K	K	K
Selling price per unit	46.60	50	75	70
Variable cost per unit	20.00	21.80	37	37
Contribution per unit	26.60	28.20	38	33
Labour hrs per unit	4 hours	6 hours	5 hours	6 hours
Contribution per hour	6.65	4.7	7.6	5.5
Ranking	2nd	4th	1st	3rd

Step 3: Computation of Optimal Budget and Profit

Ranking	Product	Demand	Hrs used	Contrib/unit	Total contrib
1st	C	540	2,700	38	20,520
2nd	A	600	2,400	26.60	15,960
3rd	D	240	1,440	33	7,920
4th	B	140	840	28.20	3,948
				Total contrib.	48,348
				Less : Fixed costs	(17,640)
			Profit		30,708

(ii) **Minimum price**

As per the solution in (d)(i), CR Ltd should produce 140 units of product B Therefore, 60 more units will be required to supply the special customer. This would require 360 hours of labour time which have to be diverted from the next least profitable product. These hours will be diverted from product D.

Total opportunity cost:

- 60 units(360 hrs/6hrs per unit) of product D x K33 = K1,980
- 140 units of product B = K3,948

K5, 928

Minimum price:

- Variable cost – 200 units x K21.8 = K4,360
- 140 units of product B = K5,928

K10,288

SOLUTION TWO

(a) Activity-based costing is based on the insight that activities create costs, while products consume resources. It is claimed that activity-based costing attaches overheads to product cost in a more meaningful way than traditional absorption costing.
The key features would include the following:
1. Identify the main activities that generate costs through activity analysis
2. Assign costs to cost pools
3. Select appropriate cost drivers for assigning cost pool costs to products
4. Calculate activity-based charge rates to assign the cost of activities to products

(b) Advantages and disadvantages of ABC

Advantages:

1. Product costs are more accurate due to the more sophisticated analysis and assignment of overhead costs. Overhead costs are assigned on a cause-and-effect basis rather than on an ad hoc or subjective basis.
2. Cost behaviour is better understood due to the analysis of activities.
3. Cost control is facilitated through the identification and management of cost-generating activities. For example, in order to reduce set-up costs, production planning could be used to eliminate short production runs and hence reduce the number of set-ups.
4. Poor decisions due to inadequate cost information are less likely to occur.
5. In many businesses, overhead costs are a significant proportion of total costs and management needs to understand the drivers of overhead costs in order to manage the business properly. Overhead costs can be controlled by managing cost drivers.
6. It provides a more accurate cost per unit. As a result, pricing, sales strategy, performance management and decision making should be improved.
7. It can be applied to derive realistic costs in a complex business environment.

Disadvantages

1. Identifying the main activities that generate costs in an organisation is expensive.
2. Careful thought must also be given to the ability of existing management accounting information systems to provide the detailed activity and cost information required by an activity-based costing system: upgrading or replacement may be needed.
3. A further expense is the cost of training staff to use the new costing system. Once introduced, an activity-based costing system can be significantly more expensive than a traditional absorption costing system. It is possible, therefore, that in some organisations the cost of introducing and maintaining an activity-based costing system may exceed the benefits gained.

(c) Cost-plus pricing approach

1. The price is not demand driven and therefore a higher price maybe set leading to low sales volumes and profits.
2. It ignores competitors' prices which may be lower hence may lead to loss of customers.
3. Cost control may not be a priority because the all costs incurred are after all recovered.

SOLUTION THREE

Part (a)

Details	**Relevant cost**	**Note**
	K	
Direct materials	29,500	1
Other materials	11,350	2
Direct labour	9,000	3
Supervisors salary	nil	4
Depreciation	nil	5
Electricity	15,500	6
Overheads allocation	nil	7

Total cost	65,350	
Profit	0	
Selling price	65,350	

1. Only K15,000 is available in stock. Remainder of K18,000 needs to be purchased. K11,500 is also a relevant cost as it represents the opportunity cost
2. Replacement price is the relevant cost
3. The idle time will be incurred even if this order is not undertaken. The relevant cost is therefore the incremental cost of K9,000 (18,000 – 9,000)
4. Fixed cost and therefore non-relevant
5. A non-cash item and therefore irrelevant
6. Cost is incremental and therefore relevant
7. Not incurred directly as a result of this order and therefore irrelevant

Part (b)

Some criteria must be established to guide the decision as to whether or not to investigate a particular variance. Factors which may be taken into account include the following:

The size of the variance. Costs tend to fluctuate around a norm and therefore 'normal 'variances may be expected on most costs. The problem is to decide how large a variance must be before it is considered 'abnormal' and worthy of investigation

The likelihood of the variance being controllable. Managers may know from experience that certain variances may not be controllable even if a lengthy investigation is undertaken to determine their causes. For example, it might be argued that a material price variance is less easily controlled than a material usage variance because it is heavily influenced by external factors.

The likely cost of an investigation. This cost would have to be weighed against the cost which would be incurred if the variance was allowed to continue in future periods.

The interrelationship of variances. Adverse variances in one area of the organisation may be interrelated with favourable variances elsewhere. For example, if cheaper material is purchased this may produce a favourable material price variance. However, if the cheaper material is of lower quality and difficult to process, this could result in adverse variances for material usage and labour efficiency.

The type of standard that was set. You have already seen that an ideal standard will almost always result in some adverse variances, because of unavoidable waste, etc. Managers must decide on the ‘normal’ level of adverse variance which they would expect to see.

SOLUTION FOUR

(a) (i) Mixing Process Account

	Litre	K		Litre	K
Opening inventory	20,000	62,248			
			Normal loss	4,000	2,000
Materials	80,000	217,600	Transfer to FP	82,000	451,820
Labour & overheads		231,240	Abnormal loss	2,000	11,020
			Closing WIP	12,000	46,248
	100,000	511,088		100,000	511,088

(ii) Fermentation Process Account

	Litre	K		Litre	K
Opening WIP	32,000				
- Prior process costs		86,260	Transfer to packaging	112,000	716,800
- Conversion costs		71,580	Closing WIP	2,000	12,800
Transfer - Mixing	82,000	451,820			
Conversion costs		119,940			
	114,000	729,600		114,000	729,600

Workings

1. Mixing

	Equivalent units			
Input	Total units	Material	Conversion	Cost
Opening WIP	20,000			
Material	80,000			
	100,000			
Output				
Closing WIP	12,000	12,000	4,800	
Normal loss (5% x materials input)	4,000	0	0	
Abnormal loss	2,000	2,000	2,000	
Transferred to fermentation process	82,000	82,000	82,000	
	100,000	96,000	88,800	
Costs				
Opening inventory		48,400	13,848	
Total costs incurred		217,600	231,240	
Scrap value (4,000 ltrs @ K0.50/ltr)		(2,000)		
Total costs to be allocated	509,088	264,000	245,088	
Cost per equivalent unit		2.75	2.76	5.51

Allocation of costs

Valuation of output transferred to fermentation process= 82,000 ltr x K5.51/Ltr	K451,820
Valuation of abnormal loss = 2,000 ltr x K5.51/ltr	K11,020
Valuation of closing WIP (12,000 ltr)	
Materials: 12,000 ltr x K2.75 =	K33,000
Conversion costs: 12,000 ltr x 40% x K2.76 =	K13,248
	K46,248
Total costs	K509,088

2. Fermentation

		Equivalent units		
Input	Total units	Material	Conversion	Cost
Opening WIP	32,000			
Material transferred from mixing	82,000			
	114,000			
Output				
Completed & transferred	112,000	112,000	112,000	
Closing WIP	0	0	0	
Abnormal loss	2,000	2,000	2,000	
	114,000	114,000	114,000	
Costs				
Opening WIP		86,260	71,580	
Prior process costs transferred in		451,820		
Costs incurred			119,940	
Total costs to be allocated	729,600	538,080	191,520	
Cost per equivalent unit		4.72	1.68	6.40

Allocation of costs:

Valuation of finished output transferred: 112,000 ltr @ K6.40 /ltr =	K716,800
Valuation of abnormal loss : 2,000 ltr x K6.40/ltr =	K12,800
Total cost	K729,600

(b) **Meaning of Terms**

(i) Overhead Allocation

Allocation is the process by which whole cost items are charged direct to a cost unit or cost centre. Cost centres may be a production department, service department or administrative department.

(ii) Overhead Apportionment

Apportionment is a procedure whereby indirect costs are spread fairly between cost centres. Service cost centre costs may be apportioned to production cost centres by using the reciprocal method.

(c) The two main reasons for using absorption costing include:

(i) Inventory valuations,

(ii) Pricing decisions, and

(iii) Establishing the profitability of different products.

SOLUTION FIVE

(a)

Step 1: Establish the demand function and find the values for a and b.

b=change in price/change in quantity=500/500=1

P=a-1Q, 20,000=a-(1*10000) =a=30,000

So the demand equation is therefore P=30,000-Q

Step 2: Obtain the value for MR from demand curve. MR=a-2bQ, MR=30,000-2Q

Step 3: Establish MC MC=K20, 000-K8000= K12, 000

Step 4: To maximize profit MC=MR, K12, 000=30,000-2Q

Step 5: K12, 000-30,000-2Q,

2Q=30,000-12000,

2Q=18,000

Q=9,000 Units and P = K30, 000-K9, 000= K21, 000

(b) BEP= Fixed Cost /Contribution per unit= K96,000,000/8,000= 12,000 units

(c) BE Sales Revenue at BEP 12 000 Units x K20,000 = **K240,000,000**

(d) **Advantages**

- Graphical representation of cost and revenue data which can easily be understood by non-financial managers.
- It helps organizations to determine the profit or possible loss that can be made at different levels of activity.

Disadvantages

- It can only be applied to single product or mix of the group of products
- It assumes that fixed costs are the same in total and variable cost are the same per unit at all levels of output.
- it assume that sales price will be constant at all levels of activity
- It ignores the uncertainty in the estimate of fixed costs and variable costs.
- It assumes productions and sales are the same.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA APPLICATION ADVANCED DIPLOMA IN ACCOUNTANCY

CA 2.3: AUDITING PRINCIPLES AND PRACTICE

THURSDAY 15 DECEMBER 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 the Audit Senior on the audit of the financial statements of Luangwa Ltd for the year ended 31 December 2020.

You are about to commence performing substantive procedures on the balances in the draft Statement of Financial Position of Luangwa Ltd. The following is an extract of figures contained in the draft statement of financial position:

	K000
Property, Plant & Equipment (note 1)	2,500
Receivables (note 2)	980
Inventory (note 3)	1,356

Note 1:
The amount of property, plant and equipment is net of additions of equipment amounting to K450,000 during the year under review and disposals amounting to K180,000.

Note 2:
The receivables balance is net of allowances for receivables and you have been provided with the schedule showing the make-up of the balance which includes prepayments and staff debts.

Note 3:
The balance of inventory is determined by way of a year-end inventory count which was conducted on 31 December 2020.

The following information relates to the purchasing and inventory systems of Luangwa Ltd:

Luangwa Ltd has a Purchasing Department under the supervision of the Chief Buyer and two (2) Purchasing Assistants. The company has a Stores Department where all goods purchased are received and kept until requisitioned by Production Department. When Production Department requires goods from stores, a Stores Requisition is raised.

When the quantity of goods held reaches the re-order level, Stores Department raises a Purchase Requisition which is passed on to the Purchasing Department. Each of the two (2) Purchasing Assistants has specific goods that they are responsible for ordering. As per company policy, three (3) quotations are obtained before deciding on which supplier to procure goods from. An Official Order is raised in quadruplicate with the original sent to the supplier, the duplicate is a finance copy, the triplicate is sent to stores department and the quadruplicate is retained by the Purchasing Department. The company policy is that purchases of goods should only be made from suppliers on the list of suppliers prepared at the beginning of each year.

Goods are received by the Stores Department and they are accompanied by the Supplier Invoice and a delivery note. The Supplier Invoices are sent to the Finance Department together with the Goods Received Notes (GRNs) raised to confirm receipt of the goods. Payments to suppliers are made by the Finance Department at the end of each month and only goods received into stores are required to be paid for. Supplier account reconciliations are carried out monthly in order to agree balances owing to the suppliers.

Required:

(a) Explain any four (4) financial statement assertions relevant to the inventory amount in the financial statements of Luangwa Ltd and explain the audit objective. (8 marks)

(b) (i) Suggest five (5) internal controls in the purchasing and stores systems of Luangwa Ltd. (10 marks)

(ii) For each of the suggested internal controls in (i), explain the control objective. (5 marks)

(iii) Suggest one (1) test of control for each of the internal controls suggested in (i) above. (5 marks)

(c) Explain two (2) audit procedures for each of the following financial statement assertions for the figure of trade receivables in the financial statements of Luangwa Ltd:

(i) Existence (2 marks)
(ii) Cut-off (2 marks)
(iii) Completeness (2 marks)

(d) Explain two (2) audit procedures for each of the additions and disposals of tangible non-current assets in the audit of the financial statements of Luangwa Ltd. (6 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt any THREE (3) questions in this section.

<u>QUESTION TWO</u>

You have just started working for a small firm of accountants, called Rhino & Co. You have been assigned to the audit of the financial statements of Busaka Clothing Ltd. This will be your first time to audit financial statements of a client in the clothing industry. The company specialises in the sale of clothing for the upmarket where tastes and fashions change quickly.

Whilst in the planning meeting, the Audit Manager discussed audit planning and one (1) of the Trainee Auditors on the Zambia Institute of Chartered Accountants (ZiCA) mentorship programme was not sure on whether or not planning adds value to the audit process. He argued that planning involves subjectivity and there is a fair level of ignorance at the start of any audit.

The Engagement Partner instructed that a risk-based approach should be used. The Audit Manager has provided you with the following details relating to four (4) situations about Busaka Clothing Ltd:

1. The company collects large amounts of cash on a daily basis, which is held before being banked the following day.
2. The outlets for Busaka Clothing Ltd are situated in the central business district and are well stocked.
3. Busaka Clothing Ltd has significant overdraft facilities used to finance the working capital requirements.
4. Senior Management is given annual performance bonuses based on the company's profitability.

The Audit Manager asked you to explain the key audit risk for each situation and to suggest appropriate audit responses.

Required:

(a) Comment on the argument by the Trainee Auditor that planning involves subjectivity and there is a fair level of ignorance at the start of any audit. (4 marks)

(b) Explain four (4) benefits of planning an audit. (4 marks)

(c) Define audit risk and explain why the concept of risk-based approach is important to auditors. (4 marks)

(d) Describe the audit risks in each of the four (4) situations provided by the Audit Manager and suggest appropriate responses. (8 marks)

[Total: 20 Marks]

QUESTION THREE

(a) You are planning the audit of a new audit client of your firm called Sinda Ltd. Sinda Ltd is a small mining company situated in Chongwe. During an initial meeting with the Director of Finance for Sinda Ltd, you learn that the company has an Internal Audit function.

The Internal Audit function is headed by a qualified Mining Engineer with twelve (12) years experience in mining operations. There are two (2) company vehicles dedicated to the Internal Audit function and its budget is fully funded every year. The audit manual is being developed with the assistance of the Director of Finance who once headed the Internal Audit function. Because of the importance of the Internal Audit function, the Director of Internal Auditor reports to the Managing Director, who is a fellow of both the Engineering Institute of Zambia (EIZ) and the Zambia Institute of Chartered Accountants (ZiCA). Management acts on the recommendations made by the Internal Audit function.

Required:

(i) Define internal audit function. (2 marks)

(ii) Explain three (3) deficiencies in the Internal Audit function for Sinda Ltd. (6 marks)

(b) A Trainee Auditor has identified the following in the draft audit report in respect of the financial statements audit for Heroes Plc for the year ended 30 June 2021:

1. The title of the audit report reads "Auditor's report to Directors of Heroes Plc"
2. The "Basis of opinion paragraph" is below "the Opinion paragraph".
3. The "Key Audit Matters (KAMs) section" has been placed below "the auditor's responsibilities for the audit of the financial statements".
4. A "Material uncertainty related to going concern" has been included in an "Emphasis of Matter paragraph"
5. The audit report contains the audit firm's name as a signature.

Required:

(i) Describe the purpose of the Key Audit Matters (KAMs) paragraph. (2 marks)

(ii) Explain the appropriateness or otherwise of the basic elements identified by the Trainee Auditor. (10 marks)

[Total: 20 Marks]

QUESTION FOUR

You are a Manager in the audit firm, Kabwe & Co; and this is your first time for you to be assigned to the audit of Elephant Ltd. Elephant Ltd has been your firm's client for ten (10) years and the Engagement Partner has remained the same during this period.

You have been asked to start planning the final audit. Following a discussion with the Finance Director, you now understand that a number of ethical threats exist.

The Engagement Partner has included three (3) trainee auditors, who passed their auditing subjects through self-study, on the audit team. However, during an in-house training with all Audit Trainees, professional ethics and elements included in the audit report were of great concern as most of them had little or no knowledge at all.

The Finance Director of Elephant Ltd gave you the draft financial statements for the year ended 31 December 2021. The draft statement of profit or loss show an increase in profitability of 25% compared to the previous year. However, the liquidity position is quite poor. The Finance Director has promised you that the previous year's audit fees will be paid as soon as the liquidity position improves.

Elephant Ltd sells laptops and to assist the audit trainees with their practical training, the company has offered them a discount and are required to pay 60% of the list price. The laptops are durable and audit trainees are happy with the offer. This means the audit work for Elephant Ltd will be completed earlier than expected which will definitely impress the directors of Elephant Ltd.

Elephant Ltd arranged a year-end staff party at a one (1) of the luxury resorts and the audit team was invited. The Finance Director has informed the Audit Senior that this will not affect the planned audit work.

The Training Manager informed you that Senior Managers have requested you to prepare notes on the elements included in the audit report which will be used at the next in-house training for trainee auditors.

Required:

(a) Explain what is meant by integrity and confidentiality. (5 marks)

(b) Using the information in the scenario:

(i) Identify and explain four (4) ethical threats which may affect the independence of Kabwe & Co. in the audit of the financial statements of Elephant Ltd. (6 marks)

(ii) For each threat, suggest a suitable safeguard. (4 marks)

(c) Explain the main purpose of "Addressee", "Date of the audit report" and "Auditor's signature" included in an audit report. (5 marks)

[Total: 20 Marks]

QUESTION FIVE

You are an Audit Manager responsible for the audit of the financial statements for Bibi Suppliers Ltd, for the year ended 31 December 2021. Your firm was recently appointed as auditors of Bibi Suppliers Ltd.

The Director of Finance has just been promoted and has requested you to remind him of the rights of auditors. He wants to ensure that everyone in the company respects these rights given that most senior managers are non-financial experts. It is rumored that the previous auditor's had concerns over abrogation of statutory rights for auditors and this could have been one of the reasons for their resignation.

Bibi Suppliers Ltd sells stock feed and it has a reputation for reliability and quality. The company is profitable and has attracted a number of customers as a result of its enhanced credit terms. The draft financial statements for the year ended 31 December 2021 show a significant improvement compared to the previous year. You are, however, concerned that window dressing cannot be ruled out. The Engagement Partner has asked you to ensure relevant substantive audit procedures are performed in order to verify the cut-off.

The sales system was designed by an unqualified accountant at the time the company was formed six (6) years ago. It could have a number of weaknesses which may affect the completeness of revenue reported in the financial statements. It is a requirement that Goods Dispatch Notes (GDN) must be signed by dispatch staff, customer and accounts staff before allowing any delivery. On a weekly basis, the Senior Financial Accountant produces error reports on numeric sequence of GDNs produced.

Required:

(a) Explain five (5) statutory rights that enable auditors to carry out their duties. (5 marks)

(b) Explain, giving two (2) suitable examples, what is meant by window dressing in the context of cash and bank balances. (3 marks)

(c) State five (5) tests of control which might be performed in order to verify completeness of the revenue figure in the financial statements for Bibi Suppliers Ltd. (5 marks)

(d) Describe seven (7) substantive procedures which might be performed in order to verify the bank balances in the financial statements for Bibi Suppliers Ltd. (7 marks)

[Total: 20 Marks]

END OF PAPER

CA 2.3: AUDITING PRINCIPLES AND PRACTICE SUGGESTED SOLUTIONS

SOLUTION ONE

(a) Financial statement assertions for inventory:

(i) Existence:
Existence with regards to inventory is a claim by management that the figure contained in the financial statements is representative of inventory that existed at the period end.

The audit objective in performing audit procedures with regards to existence is to obtain sufficient appropriate evidence that the inventory represented by the figure in the financial statements existed at the period end.

(ii) Valuation:
This is the claim by management that the inventory at the period end has been valued at the lower of cost and net realizable value as required by IAS 2 *Inventories.*

The audit objective of performing procedures on valuation of inventory is aimed at ensuring that the inventory held at the period end is valued correctly at the lower of cost and net realizable value in accordance with IAS 2 *Inventories.*

(iii) Rights and obligation:
The assertion of rights and obligations suggests that the inventory in the financial statements at the period end belongs to Luangwa Ltd. The company has ownership of the inventory.

The audit objective with regards to rights to and obligations aims at confirming that only inventory to which Luangwa Ltd has ownership (rights) is included in the inventory figure at the year end.

(iv) Cut-off:
This assertion is a claim that transactions relating to purchases, sales and inventory have been properly accounted for in the correct accounting period. Incorrectly accounting for transactions at the period end could result in a material misstatements of the financial statements.

The audit objective to perform audit procedures related to cut-off is to obtain assurance that transactions around the period date have been accounted for in the correct accounting period.

(v) Completeness:

This assertions claims that all inventory belonging to Luangwa Ltd has been included in the inventory value in the financial statements of Luangwa Ltd.

The audit objective for completeness of inventory is to obtain evidence that all the inventory owned by Luangwa Ltd and existing at the period end is included in the inventory value at the period end.

(b) (i)/(ii)/(iii) Control, control objective and tests of control – Purchases & stores systems:

1. **Control:**

   The Stores Requisitions must be accountable documents and be numbered.

   Control objective:

   The objective of having pre-numbered Stores Requisitions is to ensure that no unauthorized issues of goods from stores are made and through pre-numbering, all issues can be verified.

   Test of control:

   Inspect the Stores Requisitions books and confirm that the requisitions are pre-numbered. For a sampled period, verify that all stores requisitions used to support issues of goods from stores are numbered.

2. **Control:**

   All the Stores Repulsions should be authorized by a responsible person.

   Control objective:

   That all issues out of stores are duly authorized and that no unauthorized issues will be made.

   Test of control:

   For a sample of Stores Requisitions raised inspect them and confirm that they were duly authorized by a responsible person.

3. **Control:**
   The purchases orders should be pre-numbered and used to support payments for goods and services purchased.

   Control objective:
   The reason for pre-numbering of orders is to ensure that all orders can be accounted for and cannot be used to make duplicate payments.

   Test of control:
   Physically inspect a sample of orders issued and unissued orders and confirm that they are pre-numbered.

4. **Control:**
   All Purchase Orders are duly authorized by a responsible person. In this case, the orders should be authorized by the Purchasing Manager.

   Control objective:
   The control aims at ensuring that only good that are authorized are purchased.

   Test of control:
   For a sample of purchase orders made, inspect the purchase orders and confirm that they are duly authorized.

5. **Control:**
   A Goods Received Note (GRN) should be raised for all goods in addition to confirmation of receipt by signing the delivery note.

   Control objective:
   The purpose of raising Goods Received Notes is to ensure that all goods purchased are received into stores and can be accounted for.

   Test of control:
   For a sample of goods received into stores verify that a Goods Received Note is raised to confirm receipt of the goods.

(Note: The answer could have been presented in three column format)

(c) (i) Audit procedures to test for existence of accounts receivables:
- Perform a receivables confirmation for a sample of trade receivables.
- Follow up any non-responses and any disagreements.

- Review after date cash receipts by inspecting bank statements and cash receipt documentation. If payment relates to balances at the period end this confirms existence.

(ii) Audit procedures to test cut-off of accounts receivables:

- For a sample of sales invoices around the year end inspect the dates on the invoices and compare with the date when delivery was made and the date the invoices are recorded in the ledger.
- Inspect invoices, credit notes and adjustments around the period end and confirm that they are recorded in the correct accounting period.

(iii) Audit procedures to test for completeness of accounts receivables:

- Agree the balances from the individual sales ledger accounts to the aged receivables listing and vice versa.
- Agree the total of the aged receivables listing to the sales ledger control account.
- Cast and cross cast the age analysis for accuracy and completeness.

(d) Audit procedures for additions of additions to PPE:

- Verify the additions of K450 000 to supplier invoices.
- Verify that the additions have been duly authorized as per company policy.
- Inspect a sample of non-current asset accounts for a sample of purchases to ensure they have been correctly allocated.
- Confirm that the additions have been recorded in the accounting records by following up in the non-current asset register and the general ledger.

Audit procedures for disposals of equipment:

- Check by inspecting relevant documents that the disposals have been authorized as required by the company policy.
- Verify the disposals with supporting documentation, checking transfer of title where relevant.
- Recalculate the profit or loss on disposal for accuracy.
- Consider whether the sales proceeds are reasonable.

In the event that the asset was used as security, ensure that release from security has been correctly made

SOLUTION TWO

(a) Comment by Trainee Auditor:

According to ISA 300 *Planning an Audit of Financial Statements,* an effective and efficient audit relies on proper planning procedures. It is true that planning involves subjectivity and there is a fair level of ignorance at the start of any audit. However, plans can be revised if the auditor becomes aware of information during the audit that would have caused the auditor to have planned otherwise.

It is therefore not true that planning stage does not add any value to the audit process. It offers the much needed direction and some audits have failed in practice due to poor or no planning.

(b) Benefits of audit planning:

- Help the auditor devote appropriate attention to important areas of the audit.
- Help the auditor identify and resolve potential problems on a timely basis.
- Help the auditor properly organize and manage the audit so that it is performed in an effective manner.
- Assist in the selection of appropriate team members and assignment of work to them.
- Facilitate the direction, supervision and review of work.
- Assist in co-ordination of work done by auditors of components and experts.

(c) Definition of audit risk and importance of the concept of risk-based audit

Audit risk is the risk that the auditor expresses an inappropriate audit opinion when the financial statements are materially misstated.

Risk-based audit involves the identification and analysis of the risks associated with the client's business, transactions and systems which could lead to misstatements in the financial statements, and direction of more audit testing to risky areas. This approach is important mainly because:

- It reduces the risk of providing an incorrect audit opinion
- It saves resources e.g. time and money
- It is required by ISAs

(d) Audit risks and suggested audit responses

Audit risks	Descriptions	Audit responses
(1) The company collects large amounts of cash on	This increases the risk of misappropriation of cash.	The audit team shall perform/re-perform a

a daily basis, which is held before being banked on the following day.	Some cash may not be recorded due to fraud or theft and hence revenues could be understated.	reconciliation of a sample of till records to actual banking. In addition, the audit team shall perform analytical procedures focussing on comparing revenue with expected seasonal/monthly patterns.
(2) The outlets for Busaka Clothing Ltd are situated in the central business district and are well stocked.	Clothing is highly susceptible to theft. Hence, there is a risk that recorded inventory could be overstated by the inclusion of inventory that does not exist.	The audit team shall test the internal controls in place to prevent or detect theft. In addition, the audit team must attend inventory counting.
(3) Busaka Clothing Ltd has significant overdraft facilities used to finance the working capital requirements.	This may indicate going concern problems. There is a possibility that financial statements could wrongly be prepared on a going concern basis.	The audit team shall review correspondence with the bank/lender for any evidence of withdrawal or extension of overdraft facilities.
(4) Senior Management is given annual performance bonuses based on the company's profitability.	This creates an incentive for Senior Management to manipulate the financial statements by overstating profitability, in order to earn the performance bonus.	The audit team shall focus on and increase testing on judgemental areas e.g. provisions, revenue recognition, change of accounting policies.

SOLUTION THREE

(a) Sinda Ltd

(i) Definition of Internal Audit function

Internal Audit function is defined in the ISAs as a function of an entity that performs assurance and consulting activities designed to evaluate and improve the effectiveness of the entity's governance, risk management and internal control processes.

(ii) Deficiencies in the Internal Audit function for Sinda Ltd

- The Internal Audit function is headed by a qualified Mining Engineer – the Mining Engineer may not have the required knowledge of financial reporting /the applicable financial reporting framework. This could significantly affect the effectiveness of the Internal Audit function.
- The audit manual is being developed with the assistance of the Director of Finance – the Director of Finance may deliberately come up with a substandard audit manual in order to protect his own interest. He is faced with a serious conflict of interest which could affect the quality of the audit manual.
- Director of Internal Auditor reports to the Managing Director – this effectively means the internal audit of the office of the Managing Director may not be objective. The Managing Director is able to exercise undue influence.

(b) Heroes Plc

(i) Aim of key audit matters (KAMs)

Reporting on KAMs aims to improve transparency by helping users to understand the most significant issues the auditor faced. This should enhance the communicative value of the auditor's report.

(ii) Appropriateness or otherwise of the basic elements identified by the Trainee Auditor

1. The title of the audit report reads "Auditor's report to Directors of Heroes Plc" – the title must include the word "Independent" to distinguish it from other reports. In addition, the audit report must be addressed to the shareholders not the directors. Hence, this is not appropriate.

2. The "Basis of opinion paragraph" is below "the Opinion paragraph" – this is appropriate as it is in line with the recommended standard

format in ISA 700 *Forming an Opinion and Reporting on Financial Statements.*

3. The "Key audit matters (KAMs) section" has been placed below the "auditor's responsibilities for the audit of the financial statements" – this is inappropriate. The "Key audit matters (KAMs) section" must be placed above the "auditor's responsibilities for the audit of the financial statements". It must appear after the paragraph on going concern.

4. A "Material uncertainty related to going concern" has been included in an "Emphasis of Matter paragraph" – this not appropriate. "Emphasis of Matter paragraph" is no longer used in relation to going concern. A "Material Uncertainty" paragraph should be used instead.

5. The audit report contains the audit firm's name as a signature – this is appropriate. The standard states that the audit report must contain the auditor's signatures, whether this is the auditor's own name or the audit firm's name or both.

SOLUTION FOUR

(a) Integrity and confidentiality:

Integrity means to be straightforward and honest in all professional and business relationships.

Confidentiality means to respect the confidentiality of information acquired as a result of professional and business relationships and, therefore, not disclose any such information to third parties without proper and specific authority, unless there is a legal or professional right or duty to disclose, nor use the information for the personal advantage of the professional accountant or third parties.

(b) Ethical matters and related safeguards:

(i)Ethical threats	Explanations	(ii)Safeguards
(1) Elephant Ltd is one (1) of the firm's established clients.	The long association can create familiarity and self-interest threats which could negatively affect objectivity and independence. Kabwe & Co. may want to maintain the relationship at all costs.	Senior Auditors must be rotated.
(2) Last year's fees are still outstanding.	A self-interest threat can arise if the fees remain outstanding, as the firm may be pressured to agree to certain accounting adjustments in order to have the previous year fees paid.	If they remain outstanding, the firm should discuss with those charged with governance the reasons for the continued non-payment, and ideally agree a payment schedule which will result in the fees being settled before much more work is performed for the current year audit.
(3) 40% discount offered to audit trainees.	This can create a serious self-interest threat. A discount of 40% may be significant. The audit trainees may fail to exercise appropriate levels of professional scepticism.	The offer of discount should be declined.
(4) Invitation to a year-end staff party at a one (1) of the luxury resorts.	This can create familiarity and self-interest threats. The audit team may not	The firm should therefore politely decline the

	be seen to be independent.	invitation, clearly stating their reasons.

(c) Main purpose of the elements in the audit report

Addressee – this is meant to identify the person(s) who may use or rely on the audit report.

Date of the report – this is meant to inform the reader that the auditor has considered effects of transactions that the auditor became aware of on the financial statements up to that date.

Auditor's signature – this is normally the signature of the audit firm as the firm assumes responsibility for the audit, not the individual engagement partner.

SOLUTION FIVE

(a) Rights that enable auditors to carry out their duties:
- Right of access to the company's books and records at any reasonable time to collect the evidence necessary to support the audit opinion
- Right to require from the company's officers the information and explanations the auditor considers necessary to perform their duties as auditors
- Right to receive notices of and attend meetings of the company in the same way as any member of the company
- Right to speak at general meetings on any matter affecting the auditor or previous auditor
- Where the company uses written resolutions, a right to receive a copy of those resolutions.

(b) Window dressing

Window dressing in the context of cash and bank balances is an attempt to overstate the liquidity of the company by:

- Keeping the cash book open to take credit for remittances actually received after the year-end, thus enhancing the balance at bank and reducing receivables
- Recording cheques paid in the period under review which are not actually dispatched until after the year-end, thus decreasing the balance at bank and reducing liabilities.

(c) Tests of control to verify completeness of the revenue figure in the financial statements:
- Review and test Bibi Suppliers Ltd's procedures for accounting for numerical sequence of invoices
- Review the error report on numeric sequence of GDNs produced by the Senior Financial Accountant and enquire action taken regarding omissions
- Trace a sample of goods despatch notes (GDNs) to sales invoices and ledger
- Review a sample of GDNs for signature of the despatch staff, customer and accounts staff
- Observe despatch system ensuring staff have seen the customers' identification card prior to goods being loaded into customers' vans

(d) Substantive procedures in order to verify the cut-off for cash and bank balances in the financial statements:

- Obtain the company's bank reconciliation and check the additions to ensure arithmetical accuracy
- Obtain a bank confirmation letter from the company's bankers
- Verify the balance per bank statement to an original year end bank statement and also to the bank confirmation letter
- Verify the reconciliation's balance per the cash book to year end cash book
- Trace all of the outstanding lodgments to the pre-year end cash book, post year end bank statement and also to paying-in-book pre-year end
- Examine any old unpresented cheques to assess if they need to be written back into the purchase ledger as they are no longer valid to be presented
- Trace all unpresented cheques through a pre year end cash book and post year end statement. For any unusual amounts or significant delays obtain explanations from management
- Agree all balances listed on the bank confirmation letter to the company's bank reconciliations or the trial balance to ensure completeness of bank balances
- Review the cash book and bank statements for unusual items or large transfers around the year end, as this could be evidence of window dressing
- Examine the bank confirmation letter for details of any security provided by the company or any legal right of set-off as this may require disclosure.

END OF SUGGESTED SOLUTIONS

CA-ZAMBIA PROGRAMME EXAMINATIONS

CA APPLICATION ADVANCED DIPLOMA IN ACCOUNTANCY

CA 2.4: TAXATION

THURSDAY 15 DECEMBER 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 ignition internal combustion piston engine**	37,086	28,432	13,907	10,662

Surtax

On all motor vehicles aged more than five (5) years from year of manufacture K2,000

Customs and Excise on New Motor vehicles

Duty rates on:

1. Motor cars and other motor vehicles (including station wagons) principally designed for the transport of less than ten persons, including the driver:

Customs Duty:

Percentage of Value for Duty Purposes	30%
Minimum Specific Customs Duty	K6,000

Excise Duty:

Percentage of Value for Duty Purposes for Excise Duty Purposes	
Cylinder capacity of 1500 cc and less	20%
Cylinder Capacity of more than 1500 cc	30%

2. Pick-ups and trucks/lorries with gross weight not exceeding 20 tones:

Customs Duty

Percentage of Value for Duty Purposes	15%
Minimum specific Customs Duty	K6,000

Excise Duty:

Percentage of Value for Duty Purposes for Excise Duty Purposes	10%

3. Buses/coaches for the transport of more than ten persons

Customs Duty:

Percentage of Value for Duty Purposes	15%
Minimum Specific Customs Duty	K6,000

Excise Duty:

Percentage of Value for Duty Purposes for Excise Duty Purposes	
Seating Capacity of 16 persons and less	25%
Seating Capacity of 16 persons and more	0%

4. **Trucks/lorries with gross weight exceeding 20 tonnes**

Customs Duty:

Percentage of Value for Duty Purposes	15%

Excise Duty:

Percentage of Value for Duty Purposes for Excise Duty Purposes	0%

SECTION A

This question is compulsory and must be attempted.

QUESTION ONE

Daco Farms Ltd is a company engaged in farming and general trading. The company has been in business since 2002 preparing accounts to 31 December each year.

During the year ended 31 December 2022, the company made a final taxable profit of K2,470,800 from trading operations.

The company made a farming profit after tax of K17,300,250 for the year ended 31 December 2022. This profit figure was arrived at after taking into account the following items:

(1) Gifts & entertainment expenses which comprised the following:

	K
Gifts of Daco Farms plc. calendars to customers costing K50 each.	146,000
Entertaining potential suppliers	874,000
Christmas party for staff	353,000
	1,373,000

(2) Income tax expense of K1,530,000 in the statement of profit and loss. This figure was made up of the following:

	K
Provisional income tax for the year	1,870,000
Less: Over provision of the previous year's income tax	(340,000)
Income tax expense	1,530,000

Provisional income tax paid during the year ended 31 December 2022 amounted to K2,380,160.

(3) Professional and legal fees which comprised the following items:

	K
Legal fees in connection with purchase of farm land	15,400
Legal fees in connection with the defense of the company's capital assets	640,000
Legal fees in connection with recovery of loans from former employees	290,000
Legal fees for preparing staff contracts	368,000
Costs of defending staff motoring fines	725,000
Costs associated with issuing new share capital	139,700
	2,178,100

(4) Staff costs which included the following items:

	K
Annual salary for the Managing Director	570,000
Utility bills paid by the company for the Managing Director's house	72,000
DSTV Subscriptions paid by the company for Managing Director	12,000
Employee's Salaries	1,920,000
Staff medical allowances	39,500
Staff golf club subscriptions	65,000
Staff professional subscriptions	50,000
Employee's funeral grants	120,000
	2,848,500

The Managing Director is accommodated in a company owned house for which he pays no rent. If the house was rented to any other person, the company could have charged gross rentals of K17,600 per month.

(5) Miscellaneous expenses which included the following:

	K
Depreciation of non- current assets	453,600
Impairment of goodwill	28,500
Insurance of business premises	12,000
Fines for breach of health and safety regulations	3,900
Sundry allowable expenses	20,200
Advertising	10,400
Accounting, tax and audit fees	166,800
Loss arising from theft of money by an accounts clerk	30, 000
Unrealized foreign exchange losses	10,000
	735,400

(6) Other income which comprised the following:

		K
Dividends received from a Zambian company (net)	34, 850	
Royalties (gross)	22,000	
Bank deposit interest (net)	10,200	
Profit on disposal of tractor (refer to note 2 below)	16,900	
		83,950

Additional information

(i) The company incurred the following farming expenditure during the year:

	K
Development of orange plantation	250,000
Construction of fence around the farm	187,600
Stumping and clearing fields	6,000
Expenditure on digging wells	7,900
Expenditure on development of Rose flower plantation	180,000
Construction of two dwelling houses for farm workers (at K35,000 each)	70,000
Construction of two barns (at K30,000 each)	60,000
Expenditure on development of a Tea plantation	270,000
Expenditure on works for the prevention of soil erosion	9,200

(ii) Implements, plant and Machinery

The company held the following implements plant and machinery at 1 January 2022:

Date of Acquisition	Asset	Original Cost K
30 September 2020	Delivery Van	350,000
29 October 2020	Toyota Hilux double cab van (3000cc)	650,000
1 November 2020	Tractor	230,000

20 December 2020	Plough	29,500
23 March 2021	Pool Cars	375,000

The Toyota Hilux is used by the Managing Director on a personal-to-holder basis. Business use of the Hilux is agreed to be 40%. The Tractor had an income tax value of nil and it was sold for K50,000 during the year.

Required:

(a) Compute the total amount of capital allowances the company will be able to claim for the tax year 2022 on implements, plant & machinery and other farming capital expenditure incurred by the company. (16 marks)

(b) Compute the tax adjusted farming profits for the year ended 31 December 2022. (10 marks)

(c) Compute the company income tax payable by Daco Farms for the tax year 2022. (9 marks)

(d) State the due dates when Daco farms is required to pay the income tax you have computed in part (c) above and submit the self-assessment income tax return in respect of the tax year 2022. (2 marks)

(e) Assuming the self-assessment income tax return relating to the tax year 2022 was submitted on 30 September 2023, compute the penalties arising on the late submission of the return (3 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt any three (3) questions.

QUESTION TWO

(a) You are employed as a Tax inspector by` Zambia Revenue Authority (ZRA). You have been assigned to carry out a tax audit on one of the companies which has not been submitting correct tax returns. During your audit of this client you have discovered quite a number of anomalies which indicate that the company has been evading taxes.

Required:

(i) Explain any two (2) practices which indicate that a company is evading taxes. (2 marks)

(ii) Explain two (2) consequences of tax evasion. (2 marks)

(b) Sofia and Harry are in partnership sharing profits and losses in the ratio of 2:3 respectively. The two (2) partners are accountants by profession. Their business has grown in the recent years and need a new partner with marketing skills. On 1 April 2022, Moses was admitted to the partnership and the profits and losses were shared amongst Sofia, Harry and Moses in the ratio of 3:2:1 respectively. All the partners work full time in the partnership and were entitled to partnership salaries of K60,000 per annum for each partner up to 31 March 2022. From 1 April 2022, the partners' salaries were K40,000 per annum for each of Sofia and Harry and K30,000 per annum for Moses.

The profits and losses for the recent years have been as follows:

Year ended 31 December 2021	Loss	(K180,000)
Year ended 31 December 2022	Profit	K540,000

Required:

Calculate the amount of profits or losses on which each partner will be assessed for each of the two accounting periods and the income tax payable by each partner for the tax year 2022. (16 marks)

[Total: 20 Marks]

QUESTION THREE

You are employed in the Tax department of a firm of Chartered Accountants. Your firm is preparing a training workshop for newly recruited trainee accountants. The Tax Manager has asked you to develop notes explaining how the fundamental ethical principles of integrity and objectivity apply to the provision of tax services to be used in the workshop.

The Tax Manager has additionally asked you to prepare a computation of VAT payable by KTK Ltd, a client of your firm for the month of July 2022. You have been given the following information relating to the transactions entered into by the company during the month:

(1) Sales for the month totalled K9,200,000 which included standard rated sales of K5,520,000, zero-rated supplies of K3,220,000 and exempt supplies of K460,000. 80% of the standard rated sales were made to customers who are not registered for Value Added Tax. Customers are offered a cash discount of 2% for prompt payment. Only 10% of the customers take up the discount.

(2) Purchases for the month totalled K4,176,000 which included standard-rated purchases of K3,016,000 (VAT inclusive), zero-rated purchases of K951,200 and exempt purchases of K208,800. 30% of the standard rated purchases were obtained from vendors who are not registered for Value Added Tax.

(3) Purchases returns on standard rated purchases to vendors who are registered for VAT were K88,160 (VAT inclusive).

(4) Standard rated overheads incurred during the month totalled K532,440 (VAT inclusive) and comprised the following items:

	K
Entertainment expenses for customers	171,680
Staff refreshments	104,400
Expenses on director's accommodation	24,360
Miscellaneous overheads	232,000
	532,440

(5) Expenditure on diesel on motor vehicles amounted to K83,520 and expenditure on petrol amounted to K95,120.

(6) The company purchased office furniture at a cost of K139,200 (VAT inclusive) and a pool car at a cost of K290,000.

(7) The company sold an old personal to holder motor car for K68,000.

(8) The input VAT on all overheads cannot be attributed directly to neither taxable nor exempt supplies.

(9) All non-current assets are used to make both taxable and exempt supplies in proportion to sales.

(10) Unless specifically stated, all the above persons are registered for Value Added Tax and the transactions are stated exclusive of Value Added Tax.

Required:

(a) Explain how the ethical principles of Integrity and objectivity apply to the provision of tax services. (4 marks)

(b) Compute the value added tax payable by KTK Ltd for the month of July 2022.
You should clearly show whether VAT is chargeable or claimable on each of the above items. (14 marks)

(c) Explain the consequences of submitting the VAT return late. (2 marks)

[Total: 20 Marks]

QUESTION FOUR

Jason Banda commenced employment as a Procurement Officer at a Zambian resident company on 1 June 2022. He was entitled to an annual basic salary of K168,000, an annual housing allowance of 15% of his annual basic salary and an annual lunch allowance of 2% of his annual basic salary. Jason is paid monthly in arrears. Immediately after commencement of his employment in June 2022,

the company provided him with a salary advance of K18,000, which was recoverable in three equal monthly installments commencing on 30 June 2022.
Upon completion of his probation, Jason was awarded a salary increment of 20% of his annual basic salary effective from 1 September 2022. The company also paid his professional subscriptions to the Institute of Purchasing of K4,500.

The following additional benefits were provided to Jason during the tax year 2022:

(1) During June 2022, Jason was required to attend a work-related training workshop out of town. The company paid him board and lodging subsistence (per diem) of K15,000 in cash, to enable him attend the workshop.

(2) He was provided with free airtime credit worth K300 per month from the commencement of his employment for the sole use in making business calls.

(3) A company fuel card, which he used to purchase fuel from specific filling stations from the commencement of his employment costing K1,000 per month. He used the fuel on his own personal Toyota Hilux double cab motor van when travelling wholly and exclusively in the performance of the duties of his employment. He acquired the vehicle in January 2022 at a cost of K200,000. It has been agreed with the Commissioner General that his employment use of the car was 40%. He incurred other motor car running expenses in relation to the vehicle amounting to K5,000 per month.

(4) In September 2022, the company paid college fees for his children which amounted to K16,000.

(5) In October 2022, the company paid him a funeral allowance of K5,000, to help cover funeral costs on the death of his father.

(6) He received overtime pay in the months of November and December 2022, which was paid at the rate of K50 per hour. He was required to work overtime for 7 days in November 2022 for 3 hours per day and for 15 days in December 2022 for 5 hours per day.

During his employment in the tax year 2022, the company made the following monthly deductions from his gross earnings:

- Trade Union contributions of K300 per month.
- Employee's NAPSA contributions amounting to K897 per month.
- Pay As You Earn totaling K18,872, relating to the tax year 2022.

Jason received the following additional income in the tax year 2022.

	K
Fixed deposit interest	1,700
Treasury bill discount	8,500
Winnings from gaming and betting	18,872
Dividends from HDX Plc. (a LuSE Listed company)	13,600

The above amounts were the actual amounts received by Jason in each case.

Other information

In June 2022, Jason imported a second-hand sixteen (16) seater Toyota Hiace bus at a price of $5,800 (Free on board) from Japan which he intends to use in a public passenger transportation business, he wishes to start soon. He paid insurance charges of US$400 and freight charges of US$1,600, in transit to the port of Dar-es-Salam. He additionally paid motor vehicle inspection fees under the Japan Export Vehicle Inspection Centre (JEVIC) in Japan amounting to US$200. Incidental costs incurred to transport the vehicle from Nakonde to Lusaka amounted to US$400. Interpol clearance fee in Lusaka amounted to K300, motor vehicle registration fees amounted to K3,500, whilst road tax was K400. The bus has a cylinder capacity of 2,300 cc and was manufactured in January 2010.

The Commissioner General had advised that for the month of June 2022, the exchange rate to be used was K17.10 per $1. However, the kwacha sharply appreciated during June and the exchange rate quoted in one of the local Bureaux De Change was K16.60 per US$1.

Required:

(a) Calculate the amount of income tax payable by Jason Banda in the tax year 2022. **You should clearly indicate in your computation, using a zero (0), any benefits provided to Jason in the tax year 2022, which are not taxable.** (14 marks)

(b) Compute the Customs Value (Value for Duty Purposes) of the Toyota Hiace bus and the total import taxes paid by Joseph on the importation of the vehicle. (6 marks)

[Total: 20 Marks]

QUESTION FIVE

You are employed in a Tax Practice. The Tax Manager has presented you with the following information that has been extracted from the files of the following clients of your firm relating to the tax year 2022:

Aspire Ltd

Aspire Ltd is engaged in retailing. In the tax year 2022, the net profit from the business as per accounts was K125,000 generated form a turnover of K660,000 which was earned evenly during the year. The net profit figure was arrived at after deducting depreciation of K45,000, employee's salaries of K260,000 advertising expenses of K18,000, entertainment expenditure for customers of K4,500 donations to political parties of K3,000 and miscellaneous expenses incurred wholly and exclusively for business purposes of K204,500.
The annual turnover from the business has always averaged K660,000 per year.

Agnes Twaambo

Twaambo let out the following properties for commercial purposes in the tax year 2022:

Property	*Gross rentals per month*	*Maintenance expenses per month*
3 Retail shops	K3,000 per shop	K800 per shop
5 Residential houses	K6,500 per house	K1,200 per house
4 Sets of Office suites	K15,000 per set	K2,500 per set

Simon M'fune

Simon bought three motor vehicles in the tax year 2022 to be used for the transportation of public passengers. The details relating to each vehicle are as follows:

Date operations commenced	Type of Vehicle	Gross Income K	Operating costs K
15 February 2022	40-Seater Fuso Bus	308,000	95,000

1 April, 2022	14-Seater Toyota Hiace bus	185,000	62,000
24 September 2022	6-Seater Toyota Noah	107,000	36,000
		600,000	**193,000**

Each vehicle was operational every day from Sunday to Saturday.

Required:

(a) Provide explanations of how each of the following clients were assessed to tax in the tax year 2022:

(i) Aspire plc (3 marks)
(ii) Twaambo (2 marks)
(iii) Simon M'fune (2 marks)

(b) Prepare computations of the amount of income tax paid in the tax year 2022, by each of the taxpayers stating the relevant dues dates for the payment of the taxes arising in each case:

(i) Aspire Ltd (3 marks)
(ii) Twaambo (6 marks)
(iii) Simon M'fune (4 marks)

[Total: 20 Marks]

END OF PAPER

CA 2.4 TAXATION

SUGGESTED SOLUTIONS

SOLUTION ONE

(a) Capital allowances for the tax year 2022

	Capital allowances K
Pool cars	
Wear & Tear (K375,000 x 20%)	75,000
Toyota Hilux	
Wear & Tear (K650,000 x 20%)	130,000
Tractor	
Balancing Charge (0 – 50,000)	(50,000)
Ploughs	
Wear & Tear	Nil
Delivery Van	
Wear & Tear (K350,000 x 25%)	87,500
Fence	
Farm improvement (K187,600 x 100%)	187,600
Dwelling houses	
Farm improvement:	
(Restricted to K20,000 x 2 x 100%)	40,000
Barns	
Farm improvement (K60,000 x 100%)	60,000
Stumping & clearing	
Farm works (K6,000 x 100%)	6,000
Wells	
Farm works (K7,900 x 100%)	7,900
Prevention of soil erosion	
Farm works (K9,200 x 100%)	9,200
Orange plantation	
Development allowance (K250,000 x 10%)	25,000
Rose flowers plantation	
Development allowance (K180,000 x 10%)	18,000
Tea plantation	
Development allowance (K270,000 x 10%)	27,000
Total capital allowances	623,200

(b) Adjusted farming profits for the year ended 31 December 2022

	K	K
Profit after tax		17,300,250
Add:		
Entertaining potential suppliers	874,000	
Income tax expense	1,530,000	
Legal fees- purchase of farm land	15,400	
Legal fees- recovery of loans	290,000	
Costs associated with issue of shares	139,700	
Free accommodation benefit		
(K570,000 x 30%)	171,000	
Depreciation	453,600	
Impairment of goodwill	28,500	
Fines for breach of health regulations	3,900	
Unrealized foreign exchange losses	10,000	
Personal-to-holder car benefit- MD's Car	40,000	
		3,556,100
		20,856,350
Less:		
Dividends	34,850	
Royalties	22,000	
Bank deposit interest	10,200	
Profit on disposal of tractor	16,900	
Capital allowances (a)	623,200	
		(707,150)
Taxable farming profits		20,149,200

(c) Income tax payable for the tax year 2022

	K	K
Taxable farming profits		20,149,200
Add:		
Non-farming income		
Royalties	22,000	
Bank interest (K10,200 x 100/85)	12,000	
Profit from trading operations	2,470,800	
		2,504,800
Total taxable income		22,654,000
Company income tax		
Non-farming (K2,504,800 x 30%)		751,440
Farming income (K20,149,200 x 10%)		2,014,920
Income tax liability		2,766,360
Less:		
WHT- Royalties (K22,000 x 15%)		(3,300)
WHT- Bank interest (K12,000 x 15%)		(1,800)
Provisional income tax paid		(2,380,160)
Income tax payable		381,100

(d) The due date for payment of the income tax computed in (c) above and submission of the self-assessment income tax return for the tax year 2022 is 21 June 2023.

(e) The penalty for late submission of self-assessment income tax return is 2000 penalty units (K600) per month or part thereof.
The return was submitted late by three (3) months nine (9) days. The total penalty payable, therefore, will be:
2000 penalty units x 4 months = 8000 penalty units or K600 x 4 months = K2,400.

SOLUTION TWO

(a) Practices which indicate that a company is evading tax and the consequences of evading tax.

(i) The following are the practices which indicate that the company is evading tax:

(1) Deliberate concealment of income, including overstatement of tax credits or exemptions and suppression of profits. This results in the disclosure of income which is not the actual income earned by the taxpayer.

(2) Deliberate misrepresentation of material facts, manipulation of accounts, disclosure of unreal expenses for deductions, showing personal expenditure as business expenses etc.

(3) Hiding relevant documents.

(4) Not maintaining complete records of all the transactions.

(5) Not reporting taxes such as Value Added Tax, Pay as You Earn and withholding tax. These taxes are collected from others by the taxpayer and held in trust by the businesses, to be reported and paid to the Zambia Revenue Authority.

(ii) The following are the consequences of evading tax:

(1) Loss of revenue for the Government. The Government loses revenue that directly affects the debt level and jeopardizes the capacity to provide services and fund programmes that meet the needs of our society.

(2) People who are compliant with the law shoulder a heavier tax burden than they should because they must compensate for others who are not tax compliant.

(3) Tax compliant businesses face unfair competition from businesses that are not compliant.

(b) Sofia, Harry and Moses

Computation of business profits and computation of income tax payable for the tax years 2021 and 2022.

For the year 2021

	Total	Sofia	Harry	Moses
	K	K	K	K
Salaries	120,000	60,000	60,000	-
Balance 2:3	(300,000)	(120,000)	(180,000)	-
Total	(180,000)	(60,000)	(120,000)	-

For the year 2022

	Total	Sofia	Harry	Moses
First 3 months	K	K	K	K
Salaries (3/12)	30,000	15,000	15,000	-
Balance 2:3	105,000	42,000	63,000	-
	135,000	57,000	78,000	-
Last 9 months				
Salaries (9/12)	82,500	30,000	30,000	22,500
Balance 3:2:1	322,500	161,250	107,500	53,750
	405,000	191,250	137,500	76,250
Total	540,000	248,250	215,500	76,250
Less:				
Unrelieved losses b/f		(60,000)	(120,000)	----------
Taxable profits		188,250	95,500	76,250
Computation				
First K54,000 @ 0%		0	0	0

Next K3,600 @25%	900	900	900
Next K25,200 @30%	7,560	7,560	-
Excess:			
(K76,250 – 57,600)@30%			5,595
(K188,250 – K82,800)@37.5%	39,544		
(K95,500 – K82,800) @37.5%	--------	4,763	---------
Income tax payable	48,004	13,223	6,495

SOLUTION THREE

(a) Integrity

Integrity means being straightforward and honest in all professional and business relationships.

The tax practitioner has an obligation to ensure straightforwardness, fair dealing, a commitment not to mislead or deceive and truthfulness, when providing tax services.

This means that a member providing tax services shall ensure that their own personal tax obligations and those of any associated entities for which the member is responsible are properly discharged.

The tax practitioner must not knowingly be associated with reports, returns, communications or other information where the member believes that the information contains a materially false or misleading statement or calculation or contains statements or information furnished recklessly

Objectivity

This means that a tax practitioner shall not allow bias, conflict of interest or undue influence of others to override professional or business judgements.

Members shall be impartial and not allow prejudice or bias, conflict of interest or the influence of others to override their objective judgement in relation to tax matters.

In situations where a member is required to act as an advocate for a client when representing or assisting them before tribunals 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 and to safeguard their professional objectivity.

(b) COMPUTATION OF VAT PAYABLE FOR THE MONTH OF JULY

	K	K
Output Vat		
Standard rated sales		
(K5,520,000 x 16%)		883,200
Zero rated supplies (K3,220,000 x 0%)		0
Exempt sales (No VAT chargeable)		0
Sale of personal to holder car (K68,000 x 16%)		10,880
Total output tax		894,080
Input VAT		
Standard rated purchases		
(K3,016,000 x 70%) x 4/29	291,200	
Less purchases returns (K88,160 x 4/29)	(12,160)	
Zero rated (K600,000 x 0%)	0	
Exempt purchases (No VAT chargeable)	0	
Pool Motor car (Irrecoverable)	0	
Office furniture (K139,200 x 4/29) x 95%	18,240	
Entertainment expenses for customers (Irrecoverable)	0	
Staff refreshments (Irrecoverable)	0	
Expenses on director’s accommodation	0	
Miscellaneous overheads (K232,000 x 4/29) x 95%	30,400	

Diesel (Zero rated)	0	
Petrol (Zero rated)	0	
Total input TAX		(327,680)
VAT payable		566,400

The recoverable non-attributable VAT on the overheads will be computed by using the partial exemption formula as follows;

$$\text{Recoverable non-attributable input VAT} = \frac{\text{Total taxable supplies}}{\text{Total supplies}} \times 100\%$$

$$= \frac{K5,520,000 + K3,220,000}{K9,200,000} \times 100\%$$

$$= 95\%$$

(c) If the VAT return is submitted late, the penalty for late submission is charged. The daily penalty is whichever is higher between 1000 penalty units; and 0.5% of the VAT payable.

SOLUTION FOUR

(a) JASON'S
PERSONAL INCOME TAX COMPUTATION FOR THE TAX YEAR 2022

	K	K
Salary		
(K168,000 x3/12) + K168,000 x 120% x 4/12)		109,200
Housing allowance (15% X K109,200)		16,380
Lunch allowance (2% X K109,200)		2184
Salary advance		0
Board & lodging subsistence (per diem)		0
Free airtime		0
Free fuel		0
Professional subscriptions		0
College fees		16,000
Funeral allowance		0
Overtime pay (K50 x 7 x 3) + (K50 x 15 x 5)		4,800
		148,564
Less allowable deductions		
Capital allowances on Toyota Hilux		
(K200,000 x 20% x 40%)	16,000	
Motor vehicle running expenses		
(K5,000 x 7) x 40%	14,000	
		(30,000)
Taxable income		118,564
Income Tax		
On first K54,000 x 0%		0
On next K3,600 x 25%		900
On next K25,200 x 25%		7,560
On excess (K118,564 - K82,800) x 37.5%		13,412
		21,872
Less tax already paid		
PAYE		(18,872)
Income tax payable		3,000

(b) COMPUTATION OF VDP

Purchase price	$5,800
Insurance	$400
Freight charges	$1,600
JEVIC Inspection fee	$200
VDP in US$	$8,000
Exchange rate	x K17.10
VDP in ZMW	K136,800

COMPUTATION OF IMPORT TAXES

	Value	Import taxes
	K	K
VDP	136,800	
Specific customs duty	13,840	13,840
Specific Excise duty	0	0
Value for VAT purposes	150,640	
Import VAT @16%	24,102	24,102
Surtax charge	2,000	2,000
Total value	176,742	
Total import		39,942

SOLUTION FIVE

(a) (i) Aspire Ltd

(1) Aspire Ltd was assessed under turnover tax (TOT) as the annual turnover from the business is below K800,000.

(2) The company was required required to pay turnover tax at the rate of 4% of the gross monthly turnover.

(3) Expenses incurred wholly and exclusively for business purposes are not considered and hence were not allowable when computing turnover tax. This is because TOT is charged on gross turnover before deducting any expenses and not on the profit the business generates.

(4) Capital allowances on any qualifying implements, plant and machinery held by the company were not claimable, for purposes of computing TOT, but were computed on a notional basis to determine their income tax values at the year end.

(ii) Twambo

Twaambo was required to pay rental income tax (turnover tax on rental income), as she generated income from letting out of property throughout the tax year 2022. This is because income generated from letting out of property is chargeable to turnover tax at the rate of 4% if the rental income is K800,000 per annum or less and income tax at 12.5% if the rental income exceeds K800,000 per annum.

All the expenses she incurred wholly and exclusively for letting purposes were not allowable when computing the rental income tax as the tax is chargeable on the gross rentals before deducting any property letting expenses.
She, therefore, paid income tax on rental income at the rate of 12.5% of the gross rental income.

(i) Simon M'fune

(1) M'fune was assessed under presumptive taxes for transporters as he is an individual engaged in public passenger transportation business.

(2) The amount of presumptive taxes he was required to pay were a fixed amounts based on the seating capacities of the vehicles and not on the amount of profit he generates from the business.

(3) Expenses incurred wholly and exclusively for business purposes were irrelevant and not considered when determining presumptive tax.

(b) (i) Aspire Ltd

Since the turnover was earned evenly throughout the year, the amount of monthly turnover is:

1/12 × K660,000 = K55,000.

The turnover tax paid by the company each month was:

K55,000 × 4% = K2,200

The above amount of tax should have been paid on or before the 14th day following the end of each month.

The total amount of turnover tax that was paid in the tax year 2022 was therefore: K2,200 x 12 = K26,400

(ii) Twaambo

The annual rental income for the tax year was:

Property	Total
	K
Retail shops	
(K3,000 x 3 x 12)	108,000
Residential houses	
(K6,500 x 5 x 12)	390,000
Retail shops	
(K15,000 x 4 x 12)	720,000
	1,218,000

Since the annual rental income was above K800,000, Twaambo required to pay rental income tax at the rate of 12.5% of the gross monthly rental income.

The amount of the monthly rental income tax will be:

K1,218,000/12 x 12.5% =K12,687.50

This amount should be paid by the 14th day following the end of each month

(iii) Simon M'fune

A taxpayer can opt to pay presumptive taxes quarterly or annually. Most taxpayer's generally opt to pay the taxes quarterly.

The amounts of presumptive taxes paid by Simon were therefore computed as follows:

Fuso Bus

The bus was brought into use on 15 February 2022 and, therefore, was operational in all of the four quarters of the year. The amount of presumptive tax paid is:

K2,160 x 4 = K8,640

Hiace Bus

The Hiace bus will be brought into use on 1 April 2022 and therefore was operational in three quarters in the tax year. The amount of presumptive paid is:

K540 x 3 = K1,620

Toyota Noah

The Toyota Noah was brought into use on 24 September 2022 and therefore was operational in two quarters of the year

The amount of presumptive paid is:

K270 x 2 = K540

The total amount of presumptive tax paid by Simon in the tax year is therefore:

K8,640 + K1,620 + K540 = K10,800.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ZAMBIA APPLICATION ADVANCED DIPLOMA IN ACCOUNTANCY

CA 2.5: FINANCIAL MANAGEMENT

FRIDAY 16 DECEMBER 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

SIKICK Pharmaceuticals Co. has discovered a new pain killer called 'P-relief' for people suffering from cancer or any severe pain. The discovery of P-relief had costed SIKICK K1 million in researches and development. The company plans to buy a new machinery to produce P-relief and meet the expected demand for this new medicine. The machine will cost K251 million with a useful life of four (4) years, at the end of which time it will be sold for K5.1 million. SIKICK Pharmaceuticals Co expects demand for P-relief to be as follows:

Year	1	2	3	4
Demand (million)	35.1	40.12	50.1	25.1

The selling price for P-relief is projected to be K13 per unit and the variable cost of production is projected to be K8.1 per unit. The incremental annual fixed production overheads of K26 million per year will be incurred. The selling price and costs are all in current price terms. The selling price and variable production costs are expected to increase annually by 5% and 4.5% respectively. The fixed production overheads are expected to increase by 5.5% per year.

The machines to be used in the production of P-relief qualify for capital allowances (tax allowable depreciation) at an annual rate of 20% on a reducing balance basis. The corporate tax payable is 35% a year in arrears. Working capital required immediately is K242 million which is expected to increase in line with variable costs inflation.

SIKICK Pharmaceuticals Co is financed by 1 million 50 ngwee ordinary shares with an ex div market value of K1.40 and K0.81 million of 10% irredeemable loan inventory with an ex interest market value of 95%. The loan was issued at nominal value of K100. The dividend which has just been paid is the constant annual dividend of 20 ngwee per share.

One of the members of the Board of Directors made a comment that "In as much as the proposed investment is important to the maximisation of shareholders wealth, it is important to look at the managerial reward scheme of the company to ensure that there is goal congruence achieved. This can help solve the agency problem."

Required:

(a) Calculate the weighted average cost of capital of SIKICK Pharmaceuticals co.

(5 marks)

(b) Evaluate the financial viability of the proposed investment using the Net Present Value. (20 marks)

(c) Evaluate the financial viability of the proposed investment using the internal rate of return. (7 marks)

(d) Explain how managerial reward schemes can be used to resolve the agency problem and achieve goal congruence in an organisation. (8 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt any THREE (3) questions.

QUESTION TWO

Cloud Plc is a listed company that has in issue 300,000 shares. The company plans to raise additional finance in order to expand its existing business. The company has a debt/equity ratio of 0.25. The company's current share price is K390. It pays a percentage dividend of 10% of earnings. Cloud Plc Financial Manager has forecast the following earnings for the next five (5) years.

Years	Earnings before tax (K'000)
1	450
2	570
3	600
4	620
5	780

The company's earnings for the last five (5) years have been as follows:

Years	Earnings before tax (K'000)
1 (most recent)	405
2	310
3	300
4	264
5	252

Cloud Plc pre-tax cost of debt is 12% and pays annual corporation tax of 30%. Cloud Plc expects its earnings to grow by 8% after the fifth year.

Required:

(a) Calculate the value of the company based on the present value of expected earnings after taxation. (13 marks)

(b) Discuss the arguments for and against Cloud Plc. dividend policy. (7 marks)

[Total: 20 Marks]

QUESTION THREE

Mango FoodTech Ltd is considering how to finance the acquisition of a machine costing K1.5 million with an operating life of five (5) years. There are two (2) financing options.

Option One

The machine could be leased for an annual lease payment of K479,000 per year, payable at the start of each year.

Option Two

The machine could be bought for K1.5 million using a bank loan charging interest at an annual rate of 20% per year. At the end of five (5) years, the machine would have a scrap value of 15% of the purchase price. If the machine is bought, the maintenance costs of K40, 000 per year would be incurred.

Ignore taxation.

Required:

(a) Evaluate whether Mango FoodTech Ltd should lease or buy the machine, explaining the evaluation method which you use. (10 marks)

(b) Discuss two (2) advantages of leasing as a source of both short-term and long-term finance. (4 marks)

(c) Discuss three (3) reasons the interest rates may differ between loans of different maturity. (6 marks)

[Total: 20 Marks]

QUESTION FOUR

Midwest KP Limited is a company in the manufacturing industry. It was formed more than ten (10) years ago. The company is highly mechanized and uses modern techniques and equipment. The company is in the process of reviewing its working capital management policy. Midwest KP Limited has always operated a conservative policy in respect of the management of the working capital since its formation.

Midwest KP Limited recently purchased materials from Cowberry Limited. Midwest KP Limited was offered an incentive to pay promptly. The incentive involved a 5% cash discount on the invoice price for payment within 10 days of the invoice date. Normally Midwest is expected to settle its invoices within 30 days.

Midwest KP Limited has just received an invoice of K225,000 for the materials from Cowberry. Midwest KP Limited has the cash available to settle the invoice promptly, if this would be beneficial on financial grounds. The current short-term deposit interest is 18% per annum.

You are the Accountant for Midwest Limited and the Finance Director has asked you to:

(i) Review the current working capital policy of Midwest Limited.
(ii) Advise her whether or not the company should accept the discount on purchase of materials from Cowberry Limited.

Required:

(a) Explain three (3) features of conservative policy in respect of financing working capital. (8 marks)
(b) Discuss the main factors to consider when determining the policy in respect of investment and financing working capital. (9 marks)
(c) Advise the Finance Director whether it is beneficial on financial grounds for the company to accept the discount from Cowberry Limited. (3 marks)

[Total: 20 Marks]

QUESTION FIVE

Randlays Plc. is a company seeking expansion by increasing its production capacity. The company plans to replace its existing machine with a bigger one which is also faster in terms of processing capability. The machine will cost K100 million.

Two (2) sources of financing this project are being considered as listed below:

(i) An issue of ordinary shares at a price of K12.5 per share, or
(ii) A 10% bank loan repayable in 12 years' time.

Randlays Plc.'s profit before interest and taxation for the year ended 31 December 2021 was K70 million. The company expects this figure to increase by 10% next year as a result of the expansion programme. The company currently has 20 million ordinary shares in issue with a nominal value of K10 each and a market value of K17.50 each. The company also has a 5%, K120 m bank loan repayable in six (6) years' time.

Randlays Plc. dividend policy is to maintain a dividend cover of 3:1 for the next five (5) years. Randlays pays corporation tax at the rate of 30% per annum. During a recent meeting of the Board of Directors, there was a proposal from the Director of Finance to introduce Scrip dividends for shareholders. The company will give shareholders the choice of a cash dividend or a scrip dividend. Each shareholder would have to decide personally which option is best for them. The Director explained that this proposal would be very advantageous to the company if implemented.

Required:

(a) Prepare a forecast Income Statement extract for the forthcoming year assuming the project is undertaken (7 marks)

(b) Calculate the forecast earnings per share for next year. (5 marks)

(c) Calculate the projected level of gearing at the end of next year using market values.

(5 marks)

(d) Explain five (5) advantages of Randlays Plc. offering Scrip dividends to its shareholders.

(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 2.5: FINANCIAL MANAGEMENT

SUGESTED SOLUTION

SOLUTION ONE

(a) **FINANCIAL EVALUATION**

Year	0	1	2	3	4	5
Sales	-	479.12	575.02	753.96	396.62	-
Variable Costs	-	(297.10)	(354.88)	(463.10)	(242.45	-
Fixed Costs	-	(27.43)	(28.94)	(30.53)	(32.21)	-
Taxable cash flows	**-**	**154.58**	**191.20**	**260.33**	**121.96**	**-**
Tax@35%	-	0	(54.10)	(66.92)	(91.12)	(42.69)
Working capital	(242.00)	(10.89)	(11.38)	(11.89)	276.16	-
Initial outlay/Scrap	(251.00)	-	-	-	5.10	-
Tax relief on CA	-	-	17.57	14.06	11.24	43.19
(b) **Net Cash flow**	**(493.00)**	**143.69**	**143.29**	**195.58**	**323.35**	**0.51**
Discount@12%	1.000	0.893	0.797	0.712	0.636	0.567
Present Values	**(493.00)**	**128.32**	**114.20**	**139.25**	**205.65**	**0.29**
NPV	**94.71**					

The project should be accepted because it gives a positive NPV which means the wealth of shareholders is expected to increase in absolute terms by K94.71million.

(c) IRR

Year	0	1	2	3	4	5
Net cash flows	(493.00	143.69	143.29	195.58	323.35	0.51
Discount@20%	1	0.833	0.694	0.579	0.482	0.402
Present Value	**(493.00)**	**119.69**	**99.44**	**113.24**	**155.85**	**0.20**
NPV	**(4.56)**					

IRR= 12% + 94.71/94.71+4.56 (20%-12%)
IRR= 19.63%

The project is acceptable because the IRR is more than the cost of capital of K12%.

WORKINGS

1. SALES	1	2	3	4

Selling price	13.65	14.33	15.05	15.80
Units (million)	35.10	40.12	50.10	25.10
Total	**479.12**	**575.02**	**753.96**	**396.62**

2. VARIABLE COSTS	1	2	3	4
Cost per unit	8.46	8.85	9.24	9.66
Units (million)	35.10	40.12	50.10	25.10
Total	**297.10**	**354.88**	**463.10**	**242.45**

3. Fixed Costs	**27.43**	**28.94**	**30.53**	**32.21**

4. WORKING CAPITAL

Costs	242.00	252.89	264.27	276.16
Incremental	**(242.00)**	**(10.89)**	**(11.38)**	**(11.89)**

5. CAPITAL ALLOWANCES

Year	WDV	CA@20%	Tax Relief@35%	Year Available
1	251.00	50.20	17.57	2
2	200.80	40.16	14.06	3
3	160.64	32.13	11.24	4
4	128.51	123.41	43.19	5
Less: Scrap	5.10			
	123.41			

Cost of Capital

Ke= 20/140 x 100% = 14.29%
Kd (after tax) = 10 × (1–0.35)/95 = 6.84%
E= 1,000,000 × 1.40 = K1, 400,000
D = 95% × 810,000 = K769, 500
WACC = (14.29% × 0.645) + (6.84% x 0.355) = 11.6% round off to 12%

(d) Managerial reward schemes
The agency relationship arising from the separation of ownership from management is sometimes characterised as the 'agency problem'. For example, if managers hold none or very little of the equity shares of the company they work for, what is to stop them from working inefficiently, not bothering to look for profitable new investment opportunities, or giving themselves high salaries and perks?
Goal congruence is achieved when the objectives of agents working for an organisation are aligned with the objectives of the organisation as a whole.

Goal congruence may be better achieved and the 'agency problem' better dealt with by offering organisational rewards (more pay and promotion) for the achievement of certain levels of performance.

The conventional theory of reward structures is that if the organisation establishes procedures for formal measurement of performance, and rewards individuals for good performance, individuals will be more likely to direct their efforts towards achieving the organisation's goals. Examples of such remuneration incentives are:

(a) Performance-related pay

Pay or bonuses usually related to the size of profits, but other performance indicators may be used.

(b) Rewarding managers with shares

This might be done when a private company 'goes public' and managers are invited to subscribe for shares in the company at an attractive offer price. In a management buy-out or buy-in (the latter involving purchase of the business by new managers; the former by existing managers), managers become owner-managers.

(c) Executive share options plans (ESOPs)

In a share option scheme, selected employees are given a number of share options, each of which gives the holder the right after a certain date to subscribe for shares in the company at a fixed price. The value of an option will increase if the company is successful and its share price goes up.

SOLUTION TWO

(a)

Years	Earnings before tax (K000)	Tax @ 30% (K000)	Earnings after tax (K000)
1	450	135	315
2	570	171	399
3	600	180	420
4	620	186	434
5	780	234	546

Years	Earnings before tax (K000)	Tax @ 30% (K000)	Earnings after tax (K000)	Dividend (K000) @ 10%
1	405	122	283	28
2	310	93	217	22
3	300	90	210	21
4	264	79	185	19
5	252	76	176	18

Do(1 + g)^n = D1

18(1+g)^4 = 28

1+g = (28/18) ^0.25

g=11.7%

Ke= [Do(1+g)/Mv] + g

[28 (1+0.117)/390)]+0.117=20%

WACC = Ke x E/E+D + Kd x D/D+E

20% x 0.75 + 12% (1-0.3) x 0.25
17.1

17%

Years	Earnings before tax (K000)	Tax @ 30% (K000)	Earnings after tax (K000)	DF @ 17%	PV (K000)
1	450	135	315	0.855	269.325
2	570	171	399	0.731	291.669
3	600	180	420	0.624	262.08
4	620	186	434	0.534	231.756
5	780	234	546	0.456	248.976
Total PV					1303.81
	546(1.08)/(0.17-0.08) x 0.534 = 3,498.78				

Total valuation (K'000) 3, 498.78 +1, 303.81 = 4, 802.59

(b) At first sight, the dividend policy pursued by Cloud Plc appears to offer its shareholders predictability. However, when there are changes in a company's operating profits and the tax laws, the after tax profits may fluctuate considerably. A reduction in the after tax profits may reduce the dividend payable to shareholders. Reducing the dividend of a quoted company normally causes its share price to fall sharply since the market takes this as casting considerable doubt on its future earnings potential. But, the more mature and predictable that Cloud Plc business is, the greater the merit in its dividend policy. Distributing profits allows shareholders to make some adjustment to the risk and return profile of their portfolio without incurring the transaction costs of buying and selling.

SOLUTION THREE

a) In order to evaluate whether Mango FoodTech Ltd should use leasing or borrowing, the present value of the cost of leasing is compared with the present value of the cost of borrowing.

Leasing

The lease payments should be discounted using the cost of borrowing of Mango FoodTech Ltd. Since taxation must be ignored, the before-tax cost of borrowing must be used. The 20% interest rate of the bank loan can be used here. The five lease payments will begin at year 0 and the last lease payment will be at the start of year 5, i.e. at the end of year 4.

Present value of cost of leasing = 479,000 x 2.991 x 1.2= (K1, 719,226.8)

Borrowing

The purchase cost and the present value of maintenance payments will be offset by the present value of the future scrap value. The appropriate discount rate is again the before- tax cost of borrowing of 20%.

Year	Cash flow	K	20% DF	Present value K)
0	Purchase	(1,500,000)	1.000	(1,500,000)
1–5	Maintenance	(40,000)	2.991	(119,640)
5	Scrap value	300,000	0.355	90,450
			NPV	**(1,529,190)**

Present value of cost of borrowing = (1,529,190)

The cheaper source of financing is **Borrowing and Buying**, since the present value of the cost of borrowing is **K190, 036.8** [1,719,226.8 – 1,529,190] less than the present value of the cost of leasing.

b) Advantages of leasing

Operating leasing can act as a source of short-term finance, while finance leasing can act as a source of long-term finance. Operating leasing offers a solution to the obsolescence problem, whereby rapidly aging assets can decrease competitive advantage. Where keeping up-to-date with the latest technology is essential for business operations, operating leasing provides equipment on short-term contracts which can usually be cancelled without penalty to the lessee. Operating leasing can also provide access to skilled maintenance, which might otherwise need to be bought in by the lessee, although there will be a charge for this service.

Both operating leasing and finance leasing provide access to non-current assets in cases where borrowing may be difficult or even not possible for a company. For example, the company may lack assets to offer as security, or it may be seen as too risky to lend to. Since ownership of the leased asset remains with the lessor, it can be retrieved if lease rental payments are not forthcoming.

c) Reasons Interest Rates Differ

There are several reasons which can be discussed in explaining why interest rates may differ between loans of different maturity, as follows:

Liquidity preference theory

This theory suggests that investors prefer to have cash now and so require compensation for lending money. The longer the period for which money is lent, the higher will be the interest rate to compensate the lender for deferring their use of the loaned cash. The higher interest rate for long-term debt over short-term debt will also compensate lenders for increasing risk over time, for example, the increasing risk of default with increasing maturity. Liquidity preference theory can therefore explain why the yield curve is normally upward sloping.

Expectations theory

This theory suggests that the relationship between short-term and long-term interest rates can be explained by expectations regarding interest rate movements. Where future interest rates are expected to rise compared to short-term interest rates, the yield curve will slope upwards. Where future interest rates are expected to fall compared to short-term interest rates, the yield curve will slope downwards.

Market segmentation theory

The reason why interest rates may differ between loans of different maturity could be because the balance between supply and demand differs between markets for loans of different maturity. If demand for long-term loans is greater than the supply, for example, because of a high public sector borrowing requirement, interest rates in the long-term loan market will increase to restore equilibrium between demand and supply. Differing interest rates between markets for loans of different maturity can also explain why the yield curve may not be smooth, but kinked.

Fiscal policy

Governments may use fiscal policy to support the achievement of economic objectives. For example, the government or central bank may act to increase short-term interest rates in order to reduce inflation. This can result in short-term interest rates being higher than long-term interest rates, an effect which can be compounded if there is a decrease in the anticipated inflation reflected in long-term interest rates.

SOLUTION FOUR

(a)

A conservative policy such as the one operated by Midwest at present, aims to reduce the risk of system breakdown by holding high levels of working capital. Therefore customers are allowed generous credit terms to stimulate demand. Inventory of finished goods is high to ensure availability to customers, and raw materials and work in progress are high to minimize the risk of running out of inventory and consequence downtime in the manufacturing process. Suppliers are paid promptly to ensure their goodwill and to minimize the chance of stock outs.

However the effect of the conservative policy is that the firm carries a high burden of unproductive assets, resulting in financing costs that can destroy profitability. A period of rapid expansion can also cause severe cash flow problems as working capital requirements exceed available finance. Further problems may arise from inventory obsolescence and lack of flexibility to customer demands.

An aggressive working capital investment policy aims to reduce this financing cost and increase profitability by cutting inventory, speeding up collections from customers, and delaying payments to suppliers. The potential disadvantage of this policy is an increase in the chances of system breakdown through running out of inventory or loss of goodwill with customers and suppliers. However modern manufacturing techniques such as Just in Time encourage inventory and work in progress reductions.

Whatever the level of working capital in the business, there is a choice as to whether the investment is financed by short term or long term funds. A conservative policy would finance using longer term loans or share capital whereas an aggressive policy would finance using shorter term measures such as bank overdraft and factoring of debts. The advantage of short term finance is that it can be cheaper but its disadvantage is that it is more easily withdrawn in the event of a cash crisis.

(b)

Cash discount

Cash discount	3% x K225000 =	K6750
Investment amount	K225000 - K11250	213750
Period	(30-10) days	20 days
Therefore interest	213750 x 20/365 x 18/100	
	0.009863	
	K2108.21	

(c)

It will be more beneficial to take the discount and pay promptly by (K6750 –K2108.2 = K4641.8) provided funds are readily available and if Midwest is unlikely to have an immediate need for them.

SOLUTION FIVE

(a) Forecast Income Statement

	Share Issue	Bank Loan
Profit before interest and taxation	77	77
Loan interest payable (w1)	6	16
Profit before taxation	71	61
Corporation tax @ 30%	21.3	18.3
Profit after tax	49.7	42.7
Less: Dividends 49.7/3 and 42.7/3	16.6	14.3
Retained profit for the year	33.1	28.4

(b) FORECAST EARNINGS PER SHARE

	Share Issue	Bank Loan
No of existing ordinary shares	20,000,000	20,000,000
No of new ordinary shares	8,000,000	-
Total	28,000,000	20,000,000
Profit after tax	49.7	42.7
Issued shares 28,000,000/20,000,000	28	20
EPS	1.775	2.135

(c) GEARING

Gearing = D/(D+E)

MARKET VALUES

Equity 100000000/200

= 500000

20000000/80

= 250000

Cost of machine	=	100,000,000
20,000,000 shares x K17.5	=	350,000,000
Market Value of equity		450,000,000
Market value of debt	=	120,000,000
Total Market value D+E =		570,000,000

Gearing
(equity) = 120000000/570,000,000

Gearing
(debt)= 220000000/570,000,000
39%

Working 1
5% x K120m
6
10% x K100m =
10

(d) **Advantages of Scrip dividends**

(i) They can preserve a company's cash position if a substantial number of shareholders take up the share option
(ii) Investors may be able to obtain tax advantageous if dividends are in the form of shares.
(iii) Investors looking to expand their holding can do so without incurring the transaction costs of buying more shares.
(iv) A small scrip dividend issue will not dilute the share price significantly. If however cash is not offered as alternative, empirical evidence suggests that the share price will tend to fall.
(v) A share issue will decrease the company's gearing, and may therefore enhance its borrowing capacity

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA APPLICATION ADVANCE DIPLOMA IN ACCOUNTANCY

CA 2.6 STRATEGIC BUSINESS ANALYSIS

WEDNESDAY 14 DECEMBER 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 is question is compulsory and must be attempted.

<u>QUESTION ONE</u> – (COMPULSORY)

Toyota Incorporated

Toyota historically has enjoyed a more than 40 per cent market share in its home country of Japan, supplemented by a growing percentage of the USA and European markets where it also manufactures motor vehicles since following Nissan in manufacturing in the UK market. This strategy took Toyota 17 years from 1989 to 2006 to become profitable in the UK.

Toyota has focused on organic growth and avoided the acquisition and alliance strategies of its major competitors like Ford and General Motors. For this, it has invested in local plants in key countries around the world like in South Africa. Its European plants, however, are less profitable than those in the USA and Japan.

Toyota has sought to sell a range of cars at prices marginally below those of comparable Ford and General Motors cars. Historically Ford and GM have both sold more cars than Toyota worldwide. Toyota overtook Ford in 2006 and was 'neck-and-neck' with GM. However ,Toyota's operating profits have exceeded those of its rivals because it has ruthlessly controlled its costs.

Production systems, based on JIT (just-in-time supply-of-components), are very efficient. Toyota claims fewer defects than any other manufacturer, resulting from the vigilance of each worker on the assembly lines. The Lexus range of top-quality cars requires one-sixth of the labour hours used to build a Mercedes. During the mid-1990s the best Toyota plant was assembling a car in 13 person-hours, whereas Ford, Honda and Nissan all required 20. Its sophisticated assembly techniques eliminate waste at every stage and are driven by strong just-in-time delivery systems.

Toyota does not indulge in expensive executive facilities.

Toyota also spends 5 percent of sales revenue on research and developing (as high as any major competitor), concentrating on a search for continuous improvements 'to inch apart from competitors', rather than major breakthroughs.

Continuous improvement is a 'way-of-life' as Toyota strives to ensure its costs are always below the prices customers are willing to pay.

There is a policy of fast new model development. In the 1990s Toyota models had an average age of two (2) years; Ford and GM cars averaged five years. Many cars tend to be a refinement of previous models rather than revolutionary designs. Some would argue this implies many Toyota cars lack passion, of course.

Revenues began to fall back in 1995. Sales of Toyota's new, revamped version of its best-selling Corolla saloon were disappointing. 'In its hot pursuit of cost savings, Toyota had produced a car that lacks character'. Overall cost leaders, slicing through the competitive middle market, must still produce distinctive, differentiated products to justify their near-market-average pricing policy. More recently Toyota has launched the Yaris, which has received wide acclaim. In addition, the growing popularity of four-wheel drive recreational vehicles affected salon car sales, but Toyota responded with its own models, especially the popular RAV 4. Toyota is an established world-leader in hybrid cars with its successful Prius car; and it has started to manufacture and sell pick-up trucks in America. Its Tundra brand has begun to take market share in this critically important segment.

Chairman Hiroshi Okuda describes Toyota as a 'clever engineer that is quick to spot consumer trends and which captures customers with high quality products'.

In 2007 some commentators questioned this when Toyota was involved in a series of product recalls. It was experiencing quality problems – whilst the numbers of incidences was not excessive in industry terms it was still unusual for Toyota. The Japanese plants remained the quality leaders but Honda and Subaru were beating Toyota in quality surveys.

(Source: Thompson, J. & Martin, F. Strategic Management – Awareness and Change. Sixth Edition. South-Western CENGAGE Learning,UK, pp.200)

Required:

(a) What do you believe the competitive position of Toyota to be now? Describe the generic competitive strategies, how they can be achieved and choose the one which Toyota has been utilizing. (15 marks)

(b) Since Toyota competes in an industry in which it has no national competitive advantage, describe the steps it should take to succeed in this highly competitive auto industry. (10 marks)

(c) Suppose Toyota posts the following fictitious data: Interest bearing debt = K2m; Shareholders' equity = K4m; Profit before interest and tax = K500,000; Interest charges = K100,000; Net cash flow = K1m; Total debts = K5m.

(i) Calculate the interest cover, cash flow ratio and gearing. (6 marks)

(ii) Explain what these answers tell the shareholders about this company, the implications and advise what they should do differently. (9 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt any Three (3) Questions.

QUESTION TWO

The product life Cycle

There are many brands that were once top of the high street and have since dwindled. They may have reached the natural end of the product life cycle, but in many cases there are products that could have lasted longer with better management.

Here are a few product life cycle examples: The home entertainment industry is filled with examples at every stage of the product life cycle. For example, video cassettes are gone from the shelves. DVDs are in the decline stage, and flat-screen smart TVs are in the mature phase. Companies like Coca-cola, Lafarge (formerly Chilanga Cement) and lever Brothers (although not operating in Zambia now) are good examples of a company that manages its product life cycle well.

Required:

(a) Define the Product Life Cycle. (2 marks)

(b) With the help of a diagram, discuss four (4) stages of the Product life Cycle. (12 marks)

(c) What is the relevance of the Product Life Cycle to Strategic Planning? (6 marks)

[Total: 20 Marks]

QUESTION THREE

Kansuswa supermarket limited has expanded rapidly and competitive in all provinces in Zambia and is faring well with multinational chain stores from the SADC regions. To ensure that its performance is enhanced, management has entered into partnership with some business stores in South Africa, Zimbabwe and Botswana to strategic alliances. These alliances will help in getting supplies and business intelligence information from rivals.

(a) Assess any five (5) Strategic appeals or benefits for such Cross-border Alliances that would meet Kansuswa Supermarket Limited s' long term objectives. (10 marks)

(b) Conversely, cross-border strategic alliances and joint ventures with foreign partners have their pitfalls. Describe any five (5) of such pitfalls or risks involved. (10 marks)

[Total: 20 Marks]

QUESTION FOUR

Trade Kings Group is one of the largest privately owned manufacturers in Southern Africa. Featuring world class manufacturing facilities in Zambia and Zimbabwe, Trade Kings has proudly been manufacturing and exporting the highest quality Zambian made products within Zambia, Southern Africa and beyond.

Since 1995, now celebrating 25 years of high quality, trusted and affordable products, their portfolio has grown dramatically and the group has diversified extensively. Today, Trade Kings is a globally competitive group of businesses driven by global standards, manufacturing practices and an aggressive research and development agenda which has led to the high levels of innovation, constant improvement and a host of highly specialized, technically advanced products in recent years.
The scope of Trade Kings Group today includes four distinct clusters namely; food, beverage, laundry, home and personal care products and steel. The product range manufactured under each category is listed below:

- **Food:** Confectionery, biscuits, baking powder, custard powder, castor sugar, soya fillets, spice mixes, breakfast cereals, infant cereals, potato crisps and maize snacks.
- **Beverage:** Maheu, Chibwantu, milkshakes, instant coffee and tea beverages, carbonated soft drinks, energy drinks, juices, milk and dairy juice blends.
- **Laundry, Home and Personal Care Products:** Detergent (powder and paste), bleaches, floor cleaners, toilet cleaners, dishwashing liquids, all purpose creams, scouring powders, window and glass cleaners, bath soaps, hygiene soaps, beauty soaps, hair soaps, glycerine, hand sanitisers, liquid handwashing soaps, antiseptic liquids and fabric conditioners.
- **Steel:** Steel re-bar, angles and channels.

Source: https://www.tradekings.co.zm/home-blocks/about-tradekings-group
The Boston Consulting Group (BCG) (Hendenson,1970) developed the matrix based on empirical research that assesses businesses in terms of potential cash generation and cash expenditure requirements.

Required:

(a) Define the BCG Matrix. (3 marks)

(b) With the help of a diagram describe the elements of the BCG Matrix (14 marks)

(c) State three (3) cautions you would advise strategic planners using the BCG Matrix in companies like Trade Kings to observe. (3 marks)

[Total: 20 Marks]

QUESTION FIVE

The Channel Tunnel

The Channel Tunnel between England and France was named the greatest construction achievement of the 20th Century. Passenger and freight shuttles began operating in 1994; Eurostar passenger services began a short while later but growth was constrained until the fast access route between London and Folkestone began opening (in stages) in 2003. Freight trains also use the tunnel. The tunnel operator, Eurotunnel, has made operating profits since 1997 but other charges have meant net losses. In 2003 Eurotunnel identified the following strategic issues:

- The expensive infrastructure was underutilized.
- Operator access charges were too high.
- There were conflicts between the various stakeholders, many of them caused by the financial losses.

Eurotunnel decided to reduce access charges to stimulate demand. There was a belief that demand was sufficiently price-elastic for this to improve profitability. Debts would have to be restructured – and not for the first time. There would be fresh investment in the Folkestone freight terminal to allow it to handle Continental gauge trains for the first time. And the terminal areas of Kent and the region around Calais would be promoted to stimulate tourism.

There have been two serious fire incidents. Both resulted in major disruptions which Euritunnel had to deal with at immediate notice. The company has been restructured financially yet again, the shares are worth very little, and the business is controlled from France.

(**Source: Thompson, J. & Martin, F. Strategic Management – Awareness and Change. Sixth edition. South-Western CENGAGE Learning, UK, pp.392)**

Required:

(a) Propose some measures which this company could use to reduce its costs and those to increase revenue. (4 marks)

(b) Describe the factors which the sponsors of the Eurotunnel should have considered in selecting alliance partners. (6 marks)

(c) Suppose EBIT = K2m, retention rate = 85%, invested capital = K5m:

(i) Calculate the growth in earnings, return on invested capital and the required sales of this company. (6 marks)

(ii) Explain what your answers mean to the company. (4 marks)

[Total: 20 Marks]

END OF PAPER

CA 2.6 STRATEGIC BUSINESS ANALYSIS

SUGGESTED SOLUTIONS

SOLUTION ONE

(a) **What do you believe the competitive position of Toyota to be now? Describe the generic competitive strategies, how they can be achieved and choose the one which Toyota has been utilizing.**

Toyota mainly follows a cost leadership strategy and its competitive position is a weakened one in the industry.

Generic strategies for competitive advantage.

Cost leadership strategy: This seeks to achieve the position of lowest-cost producer in the whole industry. By producing at the lowest cost, the manufacturer can compete on price with every producer in the industry, and earn the higher unit profits, if the manufacturer so chooses.

It is an industry-wide strategy.

Differentiation strategy: It assumes that competitive advantage can be gained through particular characteristics of a firm's products. The exploitation of a product or service which the industry as a whole believes to be unique from those of competitors.

It is an industry-wide strategy.

Focus strategy: Involves a restriction of activities to only part of the market (segment or niche).

Involves segmentation but also the pursuit, within the chosen segment only, of a strategy of cost leadership or differentiation.

How to achieve overall cost leadership

- Set up production facilities to obtain economies of scale.
- Use the latest technology to reduce costs and/or enhance productivity (or use cheap labour if available).
- In high technology industries, and in industries depending on labour skills for product design and production methods, exploit the learning curve. By producing more items than any other competitor, a firm can benefit more from the learning curve, and achieve lower average costs.
- Concentrate on improving productivity.
- Minimize overhead costs.
- Get favorable access to sources of supply.

How to differentiate

- Build up a brand image.

- Give the product special features to make it stand out.
- Exploit other activities of the value chain like quality of after-sales service or speed of delivery.

How to focus

Cost Focus: Providing good or services at lower cost to a market segment.

Differentiation Focus: Providing a differentiated product or service to a market segment.

(b) **Since Toyota competes in an industry in which it has no national competitive advantage, describe the steps it should take to succeed in this highly competitive auto industry.**

If a firm wishes to compete in an industry in which there is no national competitive advantage, it can take a number of steps to succeed.

(a) **Compete in the most challenging market,** to emulate domestic rivalry and to obtain information. If a firm can compete successfully in such a market, even if this only means carving out a small niche, it should do well elsewhere.

(b) **Spread research and development** activities to countries where there is an established research base or industry cluster already.

(c) Be prepared to **invest heavily in innovation**.

(d) **Invest in human resources**, both in the firm and in the industry as a whole. This might mean investing in training programmes.

(e) **Look out for new technologies** which will change the rules of the industry.

(f) **Collaborate with foreign companies** to learn new production techniques.

(g) **Supply overseas companies**.

(h) **Source components from overseas**.

(i) **Exert pressure on politicians** and opinion formers to create better conditions for the diamond to develop, e.g. in education.

(c) **Suppose Toyota posts the following fictitious financial data:** Interest bearing debt = K2m; Shareholders' equity = K4m; Profit before interest and tax = K500,000; Interest

charges = K100,000; Net cash flow = K1m; Total debts = K5m.

(i) **Calculate the interest cover, cash flow ratio and gearing.**

Interest cover = Profit before interest and tax / Interest charges

= K 500,000 / K 100,000 = **5**

Cash flow ratio = Net cash inflow / Total debts

= K1m / K5m = **0.2 : 1**

Gearing = Interest bearing debt / Shareholders' equity + Interest bearing debt x 100

= K2m / K4m + K2m = K2m / K6m = **33.3 %**

(ii) **Explain what these answers tell the shareholders about this company, the implications and advise what they should do differently.**

Interest cover: This shows whether a company is earning enough profits before interest and tax to pay its interest costs comfortably or whether its interest costs are so high that a fall in PBIT would have a significant effect on profits available for ordinary shareholders.

An interest cover of three time or less is generally considered as worryingly low.

This interest cover is more than three and hence it is alright.

Cash flow ratio: A low figure for the cash flow ratio may not be a particular concern if the majority of debt is due to be repaid a long time ahead. Shareholders and finance providers will be more concerned about the company's ability to meet its shorter-term loans, and the risks that could threaten the cash inflows required to repay amounts owed.

Gearing: This shows the amount of debt (loans) capital which a company has as part of its total capital. A gearing ratio of more than 50% can be used as a benchmark but many companies are more highly geared than that. However there is likely to be a point when a high geared company has difficulty borrowing more unless it can also boost its shareholders' capital, either with retained profits or by a new share issue. Shareholders may not wish to have their dividends threatened by an excessive interest burden, but likewise they may be unwilling to see dividends fall as the company attempts to build up its equity base. They may also be unwilling or unable to provide extra equity funding.

This gearing figure is alright as it is less than 50%.

SOLUTION TWO

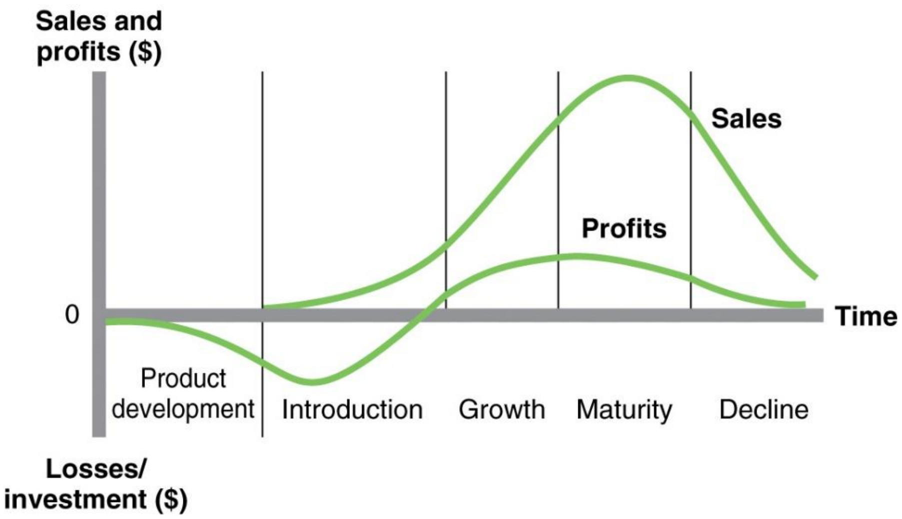
The product life Cycle

Required:

(a) Define the Product Life Cycle.

It is a concept that holds that a product has a life cycle and that a product demonstrates different characteristics of profit and investment at each stage in its life. This is an attempt to recognize the distinct stages in a product sales history. It is a model and not a prediction.

(b) With the help of a diagram, discuss four (4) stages of the Product life Cycle.



1. **Introduction**

   This is the time that a new product is launched on the market. It takes time to receive acceptance on the market. There is slow growth in sales. Unit costs are high because of low output and expensive sales promotion.

2. **Growth**

   This the stage where the product would have received acceptance. Sales begin to rise and profits are generated. Capital investments are needed to satisfy the levels of demand. Cashflow remains lower than profit. Cashflow is likely to remain negative. Competitors are attracted. As sales and production rise, unit costs fall. There is need to modify the product, additional features are needed to differentiate it from competitors, therefore product complexity may rise. Costs involved in doing this may be high. Therefore there may be need to lower the price and compete on price grounds.

3. **Maturity**

   At this stage, the market is no longer growing, purchases are now based on repeat or replacement purchases that new customers. The rate os sales growth slows down and the product reaches its maturity, -which is probably the longest period of a products life. Profits remain good. The levels of investment are low, meaning cashflow is positive. Prices begin to fall as companies compete to increase their share of a fixed market size. Firms try to capitalize on their brand name by launching spin off product under the same name. the number of firms in the industry reduces, due to consolidation in the industry in an attempt to restore profitability.

4. **Decline**

   At this stage, sales begin to decline so that there is overcapacity of production in the industry. Severe competition occurs, profits fall and some producers leave the market. The remaining producers seek means of prolonging the product life by modifying it and searching for new market segments. Many producers are reluctant to leave the market, although some inevitably do because of falling profits.

(c) State three ways in which is the Product Life Cycle is relevant to Strategic Planning.

The relevance of the Product Life Cycle to Strategic Planning is to help planners assess products in three ways:

i. The stage of its life cycle that any product has reached.
ii. The products remaining life i.e. how much longer the product will continue to contribute to profits.
iii. How urgent is the need to innovate; to develop new and improved products.

SOLUTION THREE

(a) **Strategic appeal or benefits for such Cross-border alliances include the following:**

1. Gaining better access to attractive country markets.
2. To capture economies of scale in production and/or marketing cost reduction can be the difference that allows a company to be cost-competitive.
3. To fill gaps in technical expertise and/or knowledge of local markets (buying habits and product preferences of consumers, local customers and so on.
4. To share distribution facilities and dealer networks, thus mutually strengthening their access to buyers.
5. Cross border allies can direct their competitive energies more toward mutual rivals and less toward one another, teaming up may help them close the gap on leading companies
6. Benefit comes into play when companies desirous of entering a new foreign market, conclude that alliances with local companies are an effective way to tap into a partner's local market knowledge and help it establish working relationships with key officials in the host-country government.
7. Benefit comes into play when companies desirous of entering a new foreign market, conclude that alliances with local companies are an effective way to tap into a partner's local market knowledge and help it establish working relationships with key officials in the host-country government.

(b) **Alliances and joint venture with foreign partners have their pitfalls or risks**

1. Communication, trust-building and co-ordination costs are high in terms of management time.
2. There may be disagreement among some of the key people on whom success or failure of the alliance depends.
3. There is a natural tendency for allies to struggle to collaborate effectively in competitively sensitive areas – thus creating suspicion on both sides about fortnight exchange of information and expertise.
4. There is the thorny problem of getting alliance partners to sort through to stay abreast of rapid advances in technology or fast-changing market conditions.
5. If the alliance becomes a win – win proposition for both parties, there is the danger of becoming overly dependent on foreign partners for essential expertise and competitive capabilities.

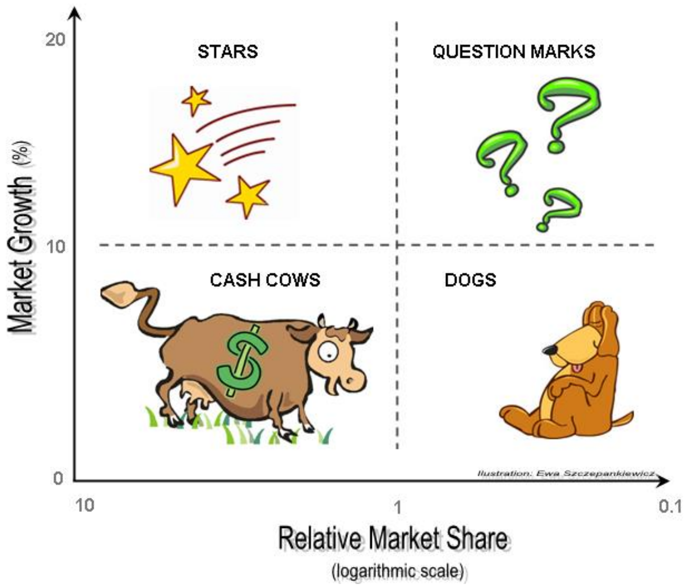
SOLUTION FOUR

Required:

(a) Define the BCG Matrix.

The BCG Matrix is a model used to analyze the portfolio of strategic business units, investments and products according to their cash generating capabilities whose function is relative market share and market growth rate. This result into 4 categories being: question marks (future potential earners), stars (increasing good positive cash flow), cash cows (cash rich) and dogs (declining cash flows)

(b) With the help of a diagram describe the elements of the BCG Matrix



The four categories are:

i. Stars - Stars generate large amounts of cash because of their strong relative market share, but also consume large amounts of cash because of their high growth rate; therefore the cash in each direction approximately nets out. If a star can maintain its large market share, it will become a cash cow when the market growth rate declines. The portfolio of a diversified company always should have stars that will become the next cash cows and ensure future cash generation.

ii. Cash cows - As leaders in a mature market, cash cows exhibit a return on assets that is greater than the market growth rate, and thus generate more cash than they consume. Such business units should be "milked", extracting the profits and investing as little cash as possible. Cash cows provide the cash required to turn question marks into market leaders, to cover the administrative costs of the company, to fund research and development, to service the corporate debt, and to pay dividends to shareholders. Because the cash cow generates a relatively stable cash flow, its value can be determined with reasonable accuracy by calculating the present value of its cash stream using a discounted cash flow analysis.

iii. Dogs - Dogs have low market share and a low growth rate and thus neither generate nor consume a large amount of cash. However, dogs are cash traps because of the money tied up in a business that has little potential. Such businesses are candidates for divestiture.

iv. Question marks - Question marks are growing rapidly and thus consume large amounts of cash, but because they have low market shares they do not generate much cash. The result is a large net cash comsumption. A question mark (also known as a "problem child") has the potential to gain market share and become a star, and eventually a cash cow when the market growth slows. If the question mark does not succeed in becoming the market leader, then after perhaps years of cash consumption it will degenerate into a dog when the market growth declines. Question marks must be analyzed carefully in order to determine whether they are worth the investment required to grow market share.

(c) State three (3) cautions you would advise strategic planners using the BCG Matrix in companies like Trade kings to observe.

i. It may be difficult to define "high" and "low" on the box axes of the matrix
ii. The matrix has been used to assess product rather than portfolios of an SBU, which Johnson et al (2005)say this should not be done, nor should it be applied to broad markets that include many market segments.
iii. The matrix is built around cashflows, but innovative capacity may be a critical resource.

SOLUTION FIVE

(a) **Propose some measures which this company could use to reduce its costs and those to increase revenue.**

Measures to reduce costs.

(i) Cut costs of labour and senior management.
(ii) Improve productivity.
(iii) Ensure clear marketing focus on target market segments.
(iv) Financial controls.
(v) Strict cash management controls.
(vi) Reduce inventory.
(vii) Cut unprofitable products and services.

Measures to increase revenue.

(i) Tailor marketing mix to key market segments.
(ii) Review pricing policies to maximize revenue.
(iii) Focus activities on target market segments.
(iv) Exploit revenue opportunities if related to target segments.
(v) Invest in growth areas.

(b) **Describe the factors which the sponsors of the Eurotunnel should have considered in selecting alliance partners.**

Factor	Details
Drivers	What benefits are offered by collaboration?
Partners	Which partners should be chosen?
Facilitators	Does the external environment favour a partnership?
Components	Activities and processes in the network.
Effectiveness	Does the previous history of alliances generate good results? Is the alliance just a temporary blip?
Market-orientation	Alliance partners are harder to control and may not have the same commitment to the end-user.

(c) **Suppose EBIT = K2m, retention rate = 85%, invested capital = K5m:**

(i) Calculate the growth in earnings, return on invested capital and the required sales of this company.

ROIC = EBIT / Invested capital (IC)

= K2m / K5m = 0.4 x 100 = **40%**

Growth in earnings (g) = Retention rate x Return on Invested Capital (ROIC)

= 0.8 x 0.4 = **0.32**

ROIC = EBIT/Sales x Sales/IC

ROIC x Sales = EBIT x Sales/IC

ROIC x Sales x IC = EBIT x Sales

ROIC x Sales x IC x Sales = EBIT

$Sales^2$ = EBIT/ROIC x IC

Sales = √ EBIT/ROIC x IC

= √ K2m/0.4 x K5m

= **K5m**

(ii) Explain what your answers mean to the company.

Growth in earnings, g, should be as close to 1 as possible so that the company has resources to invest and grow. To achieve a high growth rate a company needs to invest in R&D, expansion of distribution and manufacturing capacity, human resource development to attract new talent, and development of new markets, products or techniques.
ROIC is determined by the profit margin and by revenue growth. Hence it is an indicator of the quality of management, marketing strengths and level of investment. It has then to be as close to 1 as possible.

Sales are determined by g in a direct relationship.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA 3.1: ADVANCED FINANCIAL REPORTING

MONDAY 12 DECEMBER 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)

Love Ltd, is a Public Limited Liability Company which operates in the service sector in Zambia. Love Ltd has business relationship with two other Zambian companies, Peace Ltd and Joy Ltd, which are public limited liability companies too. The draft statements of financial position of these three companies are provided below as at 30 September 2021:

	Love Ltd K'million	Peace Ltd K'million	Joy Ltd K'million
Assets:			
Non-current assets			
Property, plant and equipment	460.0	150.0	155.0
Investment in subsidiaries			
Peace Ltd	365.0		
Joy Ltd		160.0	
Investment in Prayer Ltd	24.0		
Intangible assets	99.0	15.0	17.5
	948.0	325.0	172.5
Current assets	447.5	240.0	125.0
Total assets	**1,395.5**	**565.0**	**297.5**
Equity and liabilities			
Share capital K1	460.0	200.0	100.0
Other components of equity	36.5	18.5	12.5
Retained earnings	447.5	221.0	69.5
Total equity	944.0	439.5	182.0
Non-current liabilities	247.5	61.5	46.5
Current liabilities	204.0	64.0	69.0
Total liabilities	451.5	125.5	115.5
Total equity and liabilities	**1,395.5**	**565.0**	**297.5**

An increasing number of users have an interest in environmental matters, either as socially responsible investment (SRI) analysts, private investors, banks, employees or customers. In cases where there are material environmental impacts, they will normally expect to see something in the annual reports.

Additional relevant information:

(i) On 1 October 2020, Love Ltd acquired 60% of the equity interests of Peace Ltd. The cost of investment comprised cash of K365 million. At acquisition, the fair value of the non-controlling interest in Peace Ltd was estimated at K146 million. On acquisition date, the fair value of the identifiable net assets acquired totalled K417.5 million and the retained earnings of Peace Ltd were estimated to be K159.5 million whilst other components of equity were K13.5 million. The excess in fair value is resulting from a non-depreciable land.

(ii) It is the group's policy to measure the non-controlling interest at fair value at the date of acquisition.

(iii) On 1 October 2020, Peace Ltd acquired 70% of the equity interests of Joy Ltd for a cash consideration of K160 million. The fair value of a 30% holding of the non-controlling interests was estimated at K36 million, and a 58% holding was K80.5 million. At the date of acquisition, the identifiable net assets of Joy Ltd had a fair value of K181 million, retained earnings were K53 million and other components of equity were K10 million. The excess in fair value is due to non-depreciable land.

(iv) On 1 October 2020, Love Ltd acquired a 14% interest in Prayer Ltd, for a cash consideration of K9 million. The investment was accounted for under *IFRS 9: Financial Instruments* and was designated as at fair value through other comprehensive income. On 1 April 2021, Love Ltd acquired an additional 16% interest in Prayer Ltd for a cash consideration of K13.5 million and achieved significant influence. The value of the original 14% investment on 1 April 2021 was K10.5 million. Prayer Ltd made profits after tax of K10 million and K15 million for the years to 30 September 2020 and 30 September 2021 respectively. On 30 September 2021, Love Ltd received a dividend from Prayer Ltd amounting to K1 million, which has been credited to other components of equity.

(v) Love Ltd purchased patents amounting to K5 million to use in a project to develop new products on 1 October 2020. Love Ltd has completed the investigative phase of the project, incurring an additional cost of K3.5 million and has now determined that the product can be developed profitably. An effective and working prototype was created at a cost of K2 million and in order to put the product into a condition for sale, a further K 1.5 million was spent. Finally, marketing costs of K1 million were incurred. All of the above costs are included in the intangible assets of Love Ltd.

(vi) Impairment tests were conducted for both Peace Ltd and Joy Ltd on 30 September 2021. The recoverable amounts of both cash generating units as stated in the individual financial statements as at 30 September 2021 were Peace Ltd, K712.5 million, and Joy Ltd, K302 million, respectively. The Directors of Love Ltd felt that any impairment of assets was due to the poor performance of the intangible assets and it was deemed that other assets were already held at recoverable amount. The recoverable amounts have been determined without consideration of liabilities which all relate to the financing of operations.

Required:

(a) (i) Discuss the pressures for extending the scope of external reports prepared by entities to include voluntary disclosures about their environmental policies, impacts and practices. (3 marks)

(ii) What might users expect to see in a company's annual report to indicate that environmental concerns are receiving adequate attention? (3 marks)

(iii) Discuss the potential advantages and disadvantages to the Love group of providing voluntary environmental disclosures. (4 marks)

(b) Prepare the consolidated statement of financial position for the Love Ltd Group as at 30 September 2021. (30 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Answer ANY Three (3) questions in this section.

QUESTION TWO

Gabriella Plc (Gabriella) is a retailer of fashion clothing with operations spread throughout Zambia. The Directors of Gabriella seek advice on the accounting treatment of a number of transactions including the following in preparing financial statements for the year to 31 December 2022.

Transaction 1 - Lease of Property
On 1 January 2022, Gabriella commenced a four year lease of premises from Duba Property Developers Limited (Duba), a company that develops properties for letting out or sell. Gabriella made alterations to the premises on 1 January 2022 in order to meet their use requirements before starting to use the premises at a cost of K100,000. Legal fees paid by Gabriella amounted to K90,000. The lease requires these alterations to be reversed at the end of the lease term and the premises restored to their original state. Gabriella has estimated that the present value (at 1 January 2022) of the cost of restoration is K70,000 after discounting at a rate of 10%. The rental payable by Gabriella (due at the end of each year of the lease) will be K480,000 for the first two years and K600,000 for the last two (2) years. The Directors of Gabriella and Duba are concerned about how the lease must be accounted for in their respective financial statements for the year to 31 December 2022. The interest rate implied in the lease is 10%.

The property from which Duba has let out premises to Gabriella was acquired on 1 January 2018 at a total cost of K20 million (including K12.2 million for land). It was last revalued on 31 December 2021 to a fair value of K24 million (including K2.4 million for land). Duba has yet to revalue the property at 31 December 2022 to fair value of K19 million (including K1.8 million for land). The property has an estimated total life of 30 years. Duba uses the **IAS 40 Investment Properties** Cost Model in accounting for investment properties. Duba uses the **IAS 16 Property Plant and Equipment** Revaluation Model in accounting for owner occupied properties.

Transaction 2 – Sale and Lease Back of Property

On 1 January 2022, Gabriella sold a building to a third party at a price of K11 million when the fair value of the building was K15 million. The building whose estimated total useful economic life is 50 years was acquired on 1 January 2012 at a cost of K10 million. However, Gabriella has entered a contract leasing the building from the new owner over its remaining life of 40 years at an annual rent of K1.12 million pa due on 31 December each year over the lease term. Gabriella uses the **IAS 16 Property Plant and Equipment** Cost Model in accounting for properties. Gabriella's incremental borrowing rate is 10%. A 40 year annuity factor at 10% equals 9.779.

Required:

(a) Briefly explain how lessors must account for leases within the scope of IFRS 16 Leases
(3 marks)

(b) In transaction 1, explain how Gabriella Plc must account for the lease contract with Duba in its financial statements for the year to 31 December 2022, in accordance with IFRS.
(5 marks)

(c) In transaction 1, explain how Duba Property Developers Plc must account for the lease and the property that has been leased out to Gabriella Plc in its financial statements for the year to 31 December 2022, in accordance with IFRS. (7 marks)

(d) Explain how Gabriella must account for the sale and lease back of the building in transaction 2 in accordance with IFRS framework. (5 marks)

[Total: 20 Marks]

QUESTION THREE

Mukapasa is a listed entity and you are the financial controller. The financial statements of Mukapasa for the year ended 31 March 2022 are currently being prepared. One of Mukapasa's Directors has sent you three technical queries regarding the financial statements.

Technical Query 1

I know during the year ended 31 March 2022 we acquired Mwapona. Mwapona is a small company which operates in the construction industry. I also know that the shares in Mwapona were previously owned equally by three family members, and that Mwapona's borrowing was a bank loan. I had a look at Mwapona's audited individual financial statements for the current year. The audit report identified no issues with how the financial statements had been prepared but I don't understand how this can be correct. Mwapona is located in Zambia as we are and is subject to the same regulatory regime (ZICA). The financial statements of Mwapona do not appear to be wholly compliant with full International Financial Reporting Standards (IFRS standards). For example, the notes to Mwapona's financial statements state that all borrowing costs are expensed as they are incurred despite some of these borrowings relating to the construction of a new factory. Furthermore, the notes to Mwapona's financial statements don't appear to contain all the disclosures required by full IFRS standards.

Required:

(a) Explain why Mwapona has been allowed to prepare individual financial statements which don't appear to wholly comply with full IFRS standards.

(b) Explain if Mwapona will need to use full IFRS standards in its own financial statements now that it's part of our group. (8 marks)

Technical Query 2

You will know that during the year we made a strategic long-term investment in Mukatasha, an entity which is a vital part of our supply chain. I believe we purchased 42% of the shares, which carry one vote each, and that this gave us the right to appoint four of the ten Directors. The other six (6) Directors are independent of each other; they don't always agree when voting. I was expecting to see Mukatasha included as a subsidiary in our consolidated financial statements but instead the investment has been shown as a single figure in our consolidated statement of financial position.
The carrying amount of the investment is presented as K80 million but, given the share price, I have calculated the fair value as K84 million. I thought that equity investments that weren't consolidated needed to be measured at fair value.

Required:

(a) Why we aren't including Mukatasha as a subsidiary in our consolidated financial statements.

(b) What method will have been used to arrive at the carrying amount of K80 million rather than measuring the investment at fair value. (8 marks)

Technical Query 3

I've been reviewing the statement of profit or loss and other comprehensive income and it appears to be in two sections. The first section appears to be entitled 'profit or loss' and the second 'other comprehensive income'. It appears that the tax charge is included in the 'profit or loss' section of the statement as there is no tax charge included in the 'other comprehensive income' section of the statement. I have a number of questions regarding this statement:

1. Where does the tax relating to 'other comprehensive income' get shown?

2. How do we decide where to put a particular item of income or expenditure?

3. Do the above points have an impact on the computation of performance evaluation indicators which will be of interest to shareholders? (4 marks)

Required:
Advise the Director on the above technical queries.

[Total: 20 Marks]

<u>QUESTION FOUR</u>

(a) Share-based payment occurs when any entity purchases goods or services from another party such as a supplier or employee and rather than paying directly in cash, settles the amount owing in shares, share options or future cash amounts linked to the value of shares. Prior to the publication of IFRS 2 there appeared to be an anomaly to the extent that if a company paid its employees in cash, an expense was recognised in profit or loss, but if the payment was in share options, no expense was recognised.

In Zambia, it has become increasingly common for entities to use share-based payment methods and the most common example is to grant employees share options as part of a remuneration package. These options often vest at the end of a specified period, and are subject to vesting conditions. IFRS 2 – Share-based Payment – has been issued to provide financial reporting guidance for entities which engage in this type of transaction.

Required:

(i) Explain how share options granted to employees with a future vesting date and subject to vesting conditions should be recognised and measured in the financial statements of the employing entity. (5 marks)

(ii) Explain what would be the changes to your answer if instead the entity granted share appreciation rights which are payable in cash to the employees at the end of the vesting period. (5 marks)

(b) Zamshare prepares financial statements to 31 March each year. The information in note 1 and 2 is relevant for the year ended 31 March 2023.

Note 1 – Granting of options to sales staff

On 1 April 2021, Zamshare granted share options to 100 sales staff. The options are due to vest on 31 March 2024. The granting of the options was subject to two (2) conditions:

– The staff member remains employed by Zamshare on 31 March 2024.

– The sales revenue of Zamshare grows by a cumulative amount of at least 40% in the three-year period ending on 31 March 2024 (see the table below).

Cumulative growth in revenue in the three-year period	Number of options each employee is entitled to (subject to satisfying other vesting conditions)
Between 40% and 50%	200
Over 50%	250

On 1 April 2021, the fair value of a share option was K4.20. This had increased to K4.50 by 31 March 2022 and to K4.80 by 31 March 2023. During the two (2) years ended 31 March 2023, expectations of revenue growth and employee retention in the three-year period ending on 31 March 2024 changed as follows:

	Growth in revenue		**Employees leaving**	
Year ended 31 March	In the year	Expected cumulative growth in the three-year period	In the year	Expected FUTURE departures in the three-year vesting period
2022	12%	42%	10	20
2023	18%	54%	5	9

You can assume that this transaction was correctly accounted for by Zamshare in its financial statements for the year ended 31 March 2022. (5 marks)

Note 2 – Granting of share appreciation rights to senior executives

On 1 October 2021, Zamshare granted 500 share appreciation rights to 20 senior executives. The rights are redeemable in cash on 30 September 2025 provided the executives remain employed by Zamshare until at least 30 September 2025. On 1 October 2021, Zamshare estimated that two (2) of the 20 executives would leave in the period from 1 October 2021 to 30 September 2025 and this estimate remained unchanged at 31 March 2022.

During the year ended 31 March 2023, one executive left Zamshare and on that date Zamshare estimated that the other 19 executives would remain in employment until 30 September 2025 and so be entitled to the share appreciation rights.

On 1 October 2021, the fair value of a share appreciation right was estimated to be K6. The fair value of a right had increased to K6·20 by 31 March 2022 and to K6.40 by 31 March 2023. You can assume that this transaction was correctly accounted for by Zamshare in its financial statements for the year ended 31 March 2022. (5 marks)

Required:

Briefly explain and show how the transactions described in notes 1 and 2 would be reported in the financial statements of Zamshare for the year ended 31 March 2023.

[Total: 20 Marks]

QUESTION FIVE

DENDE has expanded during the last year and from 1 May 2022 has been supplying a new range of products, some of which are simply cheaper versions of existing products and some of which are completely new. This has resulted in DENDE increasing its market share and creating a more mixed customer base. The Directors have been looking at ways that fixed overheads can be cut and following a review last year, outsourced its payroll requirements, which led to a significant drop in administrative expenses.

In the past, DENDE has been known as a cash-rich business and a regular payer of dividends. However a recent cash shortage meant that a cash dividend was not possible in the year ended 31 December 2022. Therefore, in lieu of paying a dividend, DENDE made a 1 for 2 bonus issue on 1 September 2022.

The financial statements of DENDE are provided below:

Statement of financial position as at 31 December:

	2022 K'm	2021 K'm
ASSETS		
Non-current assets		
Property, plant and equipment	1,108	836
Investment in associate	280	-
FVTOCI financial assets	600	560
	1,988	1,396
Current assets		
Inventories	580	260
Receivables	936	526
Cash and cash equivalents	-	288
	1,516	1,074
Total assets	3,504	2,470
EQUITY AND LIABILITIES		
Equity		
Share capital (K1 equity shares)	600	400
Revaluation reserve	280	128
Other reserves	132	88
Retained earnings	1,578	1,478
Total equity	2,590	2,094
Non-current liabilities		
Long-term borrowings	400	120
Current liabilities		
Payables	398	256
Short-term borrowings (overdraft)	116	-
	514	256
Total liabilities	914	376
Total equity and liabilities	3,504	2,470

Statement of Profit or Loss and Other Comprehensive Income:

	2022 K'm	2021 K'm
Revenue	5,260	4,044
Cost of sales	(4,116)	(3,010)
Gross profit	1,144	1,034
Administrative expenses	(228)	(326)
Distribution costs	(576)	(406)
Finance costs	(40)	(12)
Share of profit of associate	160	-
Profit before tax	460	290
Income tax expense	(140)	(126)
Profit for the year	320	164
Other comprehensive income:		
Revaluation gain on property, plant and equipment	160	50
Gains on FVTOCI financial assets	64	24
Tax effects of other comprehensive income	(48)	(30)
Other comprehensive income for the year, net of tax	176	44
Total comprehensive income	496	208

DENDE has submitted an application for long-term borrowing to the finance company that you work with. You are to prepare a report that analyses the financial performance and position of DENDE for review by your supervisor. Your supervisor encourages his employees to make an initial recommendation as to whether or not the application should be given further consideration.

Required:
Prepare a report that analyses the financial performance of DENDE for the year ended 31 December 2022 and its financial position at that date. **[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 3.1: ADVANCED FINANCIAL REPORTING

SUGGESTED SOLUTIONS

SOLUTION ONE

(a)

(i) pressure to extend the scope of external reports

The annual report produced by an entity is expected to provide useful information for decision making by a wide range of stakeholders. The information within the financial statements has a number of limitations. It can only include information that can be expressed in monetary terms, and its focus is historical and backward-looking.

In recent years, the general awareness of the importance of environmental issues and other matters that affect the sustainability of business has grown. Campaigns by pressure group have raised the profile of environmental matters in the media and any publicity about adverse environmental impacts can have a massively detrimental effect on the reputation and share price of an entity. Many potential investors now look for entities that appear to have sound environmental and ethical policies, as well as healthy reported profits.

As a result, an increasing number of entities produce reports on their environmental policies, impacts and practise in order to explain to stakeholders the risks that are faced by the business as a result of environmental issues and the policies and actions that are being taken to minimise these. There is no specific accounting standard that requires such a report, so the content and level of detail can be chosen by the entity.

As the level of voluntary disclosures increases amongst entities within a particular sector, it can be difficult for an entity to avoid providing this additional information if it wants to maintain its reputation in comparison with its competitors.

(ii) What might users expect to see in a company's annual report to indicate that environmental concerns are receiving adequate attention

In cases where there are material environmental impacts, they will normally expect to see a statement of *corporate commitment, policies and strategy, showing the importance attached to such issues*. There could well be a competitive advantage to be gained from being seen as a leader in responsible environmental practices. The statement would usually deal with the overall control over such issues, whether through a committee of the board or a senior manager with practical experience of environmental issues in a corporate context.

- Most users, particularly investors and lenders, will also be concerned to know whether there are any material financial impacts, actual or potential, arising from environmental issues. Where this is the case, discussion of environmental risks and uncertainties in the annual report, together with the related action taken, may therefore be appropriate as well as information about environmental performance. Depending on the nature of the entity, there could be a call for information about matters such as *site remediation, disposal of waste, resource recycling or supply chain performance*. In identifying the environmental matters likely to be of particular concern to report users, some form of stakeholder engagement is beneficial.
- Many fund managers have a department dealing with SRI. In reviewing a company's annual report, the environmental matters attracting attention will tend to vary according to its nature,

size and geographical location but, where environmental matters are significant, will generally fall within the following main areas:

- ✓ *Commitments, policies and strategies.*
- ✓ *Environmental management.*
- ✓ *Principal environmental impacts.*
- ✓ *Environmental performance – absolute and relative.*
- ✓ *Fines, penalties or awards.*

(iii) Advantages and disadvantages to the Love Group.

The Love group may be more attractive to a wider range of investors if it provides voluntary environmental disclosures as investors who follow ethical investment policies may be more inclined to include the Love group in their portfolios. This could widen the investor base and help to sustain the share price of the Love group. The additional disclosure may also help the Love group to gain new customers, as many businesses now follow ethical procurement policies and would be more likely to buy from the Love group if more information was available about the entity's environmental practices.

The disadvantage of producing this information is that it will require additional staff resources and extra costs will be incurred.

An advantage of the disclosures being voluntary is that the Love group can select the level of detail and the aspects to include in the report.

One disadvantage of this is that a report that includes only statements of policies and aims may be seen as being too superficial. This could even be seen as detrimental to the reputation of the entity of readers of the information consider it to be little more than a public relations exercise, and may even question whether the entity has something to hide.

If the Love group selects issues to include that currently show the entity in a positive light, there will be an expectation that the same issues will be highlighted every year, even when performance in that area has been poor.

(b)

Love Ltd Group Consolidated statement of financial position as at 30 September, 2021

Assets:	**Kmillion**
Non-current assets	
Property, plant and equipment (460 + 150 + 155 +44.5 + 18)	827.5
Goodwill (W3)	93.5
Intangible assets (99 + 15 + 17.5 – 4.5 -13.5)	113.5
Investment in Prayer (W7)	25.25
Current assets (447.5 + 240 + 125)	812.5
Total assets	**1,872.25**
Equity and liabilities	
Equity attributable to owners of parent	

Share capital	460
Retained earnings (W5)	489.41
Other components of equity (W5)	38.05
	987.46
Non-controlling interest (W4)	192.29
	1,179.75
Total non-current liabilities (247.5 + 61.5 + 46.5)	355.5
Current liabilities (204 + 64 + 69)	337.0
Total liabilities	692.5
Total equity and liabilities	**1,872.25**

Workings (W1) Group Structure

Love **Prayer Ltd** (14% until April 1 2021

60% 30% from April 1, 2021

Peace Ltd

70%

Joy Ltd

The group effective interest in Joy Ltd is 42% (60% x 70%).

The NCI holding is therefore 58% (100% - 42%).

		Peace Ltd	Joy Ltd	
Love Ltd (Group) interests:	Direct	60%	-	
	Indirect	-	60% x 70% =	42%
Non-controlling interest:	Direct	40%	(100% - 70%) =	30%
	Indirect	-	40% x 70%	= 28%
		100%		100%

(W2) Net Assets – Peace Ltd

	Acquisition date	Reporting date	Change
	K million	K million	K million
Share capital	200	200	-
Other components	13.5	18.5	5.0
Retained earnings	159.5	221	61.5
Fair value adjustment – land	44.5	44.5	-
	417.5	484	66.5

Net Assets - Joy Ltd

	Acquisition date	Reporting date	Change
	K million	K million	K million
Share capital	100	100	-
Other components	10	12.5	2.5
Retained earnings	53	69.5	16.5
Fair value adjustment- land	18	18	-
	181	200	19

(W3) Goodwill

Peace Ltd	**K million**
Fair value of consideration	365
Fair value of non-controlling interest	146
Fair value of identifiable net assets acquired (W2)	(417.5)
Goodwill at acquisition	93.5
Joy Ltd	**K million**
Fair value of consideration	160
Indirect holding adjustment (40% x K160)	(64)
FV of NCI at acquisition (a 58% holdings)	80.5
Less fair value of identifiable net assets (W2):	(181)
Negative Goodwill at acquisition	(4.5)
Goodwill to Profit or Loss account	4.5
Goodwill at reporting date	-

(W4) Non–controlling interest

	K million
NCI in Peace Ltd at acquisition	146
NCI % of post-acquisition profit (40% x (K484 - K417.5) (W2))	26.6
Indirect holding adjustment (40% x K160)	(64)
NCI in Joy Ltd at acquisition	80.5
NCI% of post-acquisition profit (58% x (K200 - K181) (W2))	11.02
Impairment (58% x K13.5 (W6))	(7.83)
	192.29

(W5) Reserves

Retained earnings	**K million**
Love Ltd	447.5
Peace Ltd: 60% x (K221 - K159.5 (W2))	36.9
Joy Ltd: 42% (K69.5 - K53) (W2))	6.93

Impairment (42% x K13.5 (W6))	(5.67)
Prayer Ltd gain from OCE (W7)	1.5
Prayer Ltd dividend (W7)	1
Share of Prayer's post-acquisition retained earnings (W7)	1.25
Capital surplus (Negative goodwill of Joy Ltd)	4.5
Intangible assets (W8)	(4.5)
	489.41
Other components of equity	
	K million
Love Ltd	36.5
Peace: 60% x (K18.5 - K13.5) (W2)	3
Joy Ltd: 42% (K12.5 - K10) (W7))	1.05
Prayer Ltd gain to retained earnings (W7)	(1.5)
Prayer Ltd dividend (W7)	(1)
	38.05

(W6) Impairment

In note 6 of the question, we are told that the recoverable amount of each subsidiary has been determined 'without consideration of liabilities'. In other words, you are given the recoverable amounts of the assets only. Make sure that you compare this the recoverable amounts of the assets only. Make sure that you compare this to the carrying value of each subsidiary's assets (rather than the net assets)

	Peace Ltd K million	Joy Ltd K million
Goodwill (W3)	93.5	-
Assets (per SFP)	565	297.5
Fair value adjustment (W2)	44.5	18
Total assets value	703	315.5
Recoverable amount	(712.5)	(302)
Impairment	n/a	13.5

There is no impairment in the case of Peace Ltd but Joy's Ltd assets are impaired. Group reserves will be debited with K5.67 million and NCI with K7.83 million, being the loss in value of the assets split according to the effective interests.

(W7) Prayer Ltd

Love Ltd has significant influence over Prayer. Prayer ltd is therefore an associate and must be accounted for using the equity method. The gain of K1.5 million (K10.5 million - K9 million) recorded with OCE up to April 1, 2021 would not be transferred to profit or loss for the year but can be transferred within equity and hence to retained earnings under IFRS 9 Financial instruments.

Dr OCE K1.5 million

Cr retained earnings K1.5 million

The dividend should have been credited to Love's Ltd profit or loss and not OCI.

Dr OCE K1 million

Cr retained earnings K1 million

The amount included in the consolidated statement of financial position would be:

	K million
Cost (K10.5 million + K13.5 million)	24
Share of post-acquisition profits (K15 million x 6/12 x 30%)	2.25
Less dividend received	(1.0)
	25.25

There is no impairment as the carrying amount of the investment in the separate financial statements does not exceed the carrying amount in the consolidated financial statements nor does the dividend exceed the total comprehensive income of the associate in the period in which the dividend is declared

The group's share the post-acquisition retained earnings movement is K1.25 m (K2.25 m - K1.0 m). This will be held within group earnings (W5).

(W8) Development
There are strict criteria in IAS 38 governing the items that can be included in the cost of an intangible assets. Love Ltd should recognize the K5 million as an intangible asset plus the cost of the prototype of K2 million and the K1.5 million to get it into condition for sale. The remainder of the costs should be expensed including the marketing costs. This totals K4.5 million, which should be taken out of intangibles and expensed.

Dr retained earnings K 4.5 million

Cr intangible assets K4.5 million

SOLUTION TWO

(a)
Lessors shall classify each lease as an operating lease or a finance lease. [IFRS 16:61]
A lease is classified as a finance lease if it transfers substantially all the risks and rewards incidental to ownership of an underlying asset. Otherwise a lease is classified as an operating lease. [IFRS 16:62]

Examples of situations that individually or in combination would normally lead to a lease being classified as a finance lease are: [IFRS 16:63]

- the lease transfers ownership of the asset to the lessee by the end of the lease term.
- the lessee has the option to purchase the asset at a price which is expected to be sufficiently lower than fair value at the date the option becomes exercisable that, at the inception of the lease, it is reasonably certain that the option will be exercised.
- the lease term is for the major part of the economic life of the asset, even if title is not transferred.
- at the inception of the lease, the present value of the minimum lease payments amounts to at least substantially all of the fair value of the leased asset.
- the leased assets are of a specialised nature such that only the lessee can use them without major modifications being made.

Upon lease commencement, a lessor shall recognise assets held under a finance lease as a receivable at an amount equal to the net investment in the lease. [IFRS 16:67]

A lessor recognises finance income over the lease term of a finance lease, based on a pattern reflecting a constant periodic rate of return on the net investment. [IFRS 16:75]
At the commencement date, a manufacturer or dealer lessor recognises selling profit or loss in accordance with its policy for outright sales to which IFRS 15 applies. [IFRS 16:71c)]
A lessor recognises operating lease payments as income on a straight-line basis or, if more representative of the pattern in which benefit from use of the underlying asset is diminished, another systematic basis. [IFRS 16:81]

(b)
Gabriella must capitalise the lease recognising the Right Of Use Asset (ROUA) and lease liabilities. Gabriella must also recognise a Provision in accordance with IAS 37 in respect of the obligation to reverse the alterations at end of the lease term. The following amounts are applicable:

1.	Lease liability:		K'm
	Initial liability (PV of future MLPs)		
	0.48(1.1^-2+1.1^-2)+0.6(1.1^-3+1.1^-4)		1.69
	Fiance cost to charge in P/L for y/e 31.12.2022 10%X1.69		0.17
	Rental Paid at 31.12.2022		(0.48)
	Total lease liability at 31.12.2022		1.38
	Non current portion 1.38X1.1-0.48		1.04
	Current portion (balance) (1.38-1.04)		0.34
2.	Provision for Decommissioning (reversal of alterations)		
	Initial carrying amount (PV at 1.1.2022)		0.07
	Unwinding of discount to report in P/L for y/e 31.12.2022		
	0.07X10		0.01

Carrying amount of Provision to report in SFP at 31.12.2022 0.08

3. ROUA
Cash amounts incurred on 1.1.2022 as:
    - Alterations 0.10
    - Legal fees 0.90

	1.0
Initial lease liability	1.69
Initial provision for decommissioning	0.07

Initial carrying amount at 1.1.2022 2.76 Amortisation to charge in P/L for the y/e 31.12.2022 2.76/4 (o.69)
Carrying amount to report in SFP at 31.12.2022 2.07

(c)

Accounting for the lease:

The lease is an operating lease. The lease term of 4 years is a very small proportion of the total useful economic life of the building (30 years).Therefore, Duba will continue accounting for ownership of the building as an investment property in accordance with IAS 40 and must recognise the total MLPs as income over the lease term on a straightline basis in accordance with IFRS 16 as follows:

		K'm
Duba's total MLPs (0.48X2+0.6X2)		2.16
Renta income to recognise in P/L for the y/e 31.12.2022	2.16/4	0.54
Cash received to date at 31.12.2022		(0.48)
Receivable (Accrued income) to report in SFP at 31.12.2022		0.06

Accounting for the building:

Carrying amount b/d 1.1.2022		24
Depreciation charge in P/L for the y/e 31.12.22	24/(30-4)	(0.92)
Carrying amount at 31.12.2022 before revaluation		23.08
Revaluation loss at 31.12.2022		(4.08)
FV to report ascarrying amount in SFP at 31.12.2022		19.00

Reporting the losss:
Cost model carrying amount at 31.12.2022 (20-20/30X5) 16.67
The whole loss is a partial reversal of a past gain (new carrying amount after the loss is above the cost model carrying amount). Therefore the whole loss will be reported in OCI for the year to 31.12.2022.

(d)

The sale in the sale and lease back transaction at hand does not have the commercial substance as a sale in accordance with IFRS 15. The seller (Gabriella) has not transferred substantially all economic benefits and risks relating to the ownership of the building as it will continue to derive economic benefits embodied in the building over the building's remaining life though through leasing. Gabriella should therefore continue accounting for the ownership of the asset. The substance of the transaction appears to be a financing arrangement through which Gabriella has effectively obtained a loan equal to the purported disposal proceeds pledging the asset as security. The lease rentals represent the loan repayment instalments. Amounts to report in the FS of Gabriella for the year to 31.12.2022 are as follows:

The Building:		K'm
Carrying amount b/d 1.1.2022	(10X40/50)	8
Depreciation charge in P/L for y/e 31.12.22	8/40	(0.2)
Carrying amount to report in the SFP at 31.12.2022		7.8

The Loan (disposal proceeds):		
Initial liability at 1.1.2022		11
Finance cost to chrge in P/L for the y/e 31.12.2022	11X10%	1.1
Loan instalment paid (rental)		(1.12)
Total loan liability to report in the SFP at 31.12.2022		10.98

SOLUTION THREE

Query 1.

(a) Because Mwapona was previously owned by three private shareholders and does not operate in the banking or finance sector, it is regarded as an entity which is not publicly accountable.

In these circumstances, Mwapona is permitted, but not required, to adopt the simplified form of financial reporting set out in the IFRS for Small and Medium Sized Entities (the IFRS for SMEs). The IFRS for SMEs restricts the recognition of assets and liabilities in certain circumstances (e.g. borrowing costs are always expensed under the IFRS for SMEs). In addition, the disclosure requirements of the IFRS for SMEs are less than for full IFRS standards.

(b) Even though Mwapona is now part of a group which will use full IFRS in its consolidated financial statements, Mwapona would still be able to use the IFRS for SMEs in its own individual financial statements. Adjustments would of course be required at consolidation level to make the consolidated financial statements fully IFRS standard compliant.

Query 2

(a) New investment Under the principles of IFRS 10 – Consolidated Financial Statements, Mukatasha would be a subsidiary if we were in a position to control its operating and financial policies.

In this case, whilst the investment is long term and substantial, it does not give us control, so consolidation is inappropriate. Under the principles of IAS 28 – Investments in Associates and Joint Ventures – the 42% shareholding in Mukatasha, being greater than 20%, would be presumed to give us significant influence over the operating and financial policies of Mukatasha. Given the fact that we are able to appoint four of the ten members of Mukatasha's board of directors, and there is no evidence that the other shareholders or board members are acting in concert to prevent us from exercising this influence, then the presumption of significant influence would appear to be appropriate in this case.
Therefore IAS 28 would regard Mukatasha as an associate.

(b) IAS 28 requires that investments in associates are measured using the equity method. This method initially measures the investment at cost, but then adjusts the carrying amount by the investing entity's share (42% in this case) of the post-acquisition change in net assets of the investee entity (Mukatasha in this case). This amount is not necessarily the same as the fair value of the investment at any given date.

Technical query 3

The statement of statement of comprehensive income is newly described as "statement of financial performance", however, the framework does not specify whether this statement should consist of a single statement or two statements, it only requires that a total or subtotal for profit or loss must be provided. It also notes that the statement of profit or loss is the primary source of information about an entity's financial performance for the reporting period and that only in "exceptional circumstances" the Board may decide that income or expenses are to be included in other comprehensive income.

Notably, the framework does not define profit or loss, thus the question of what goes into profit or loss or into other comprehensive income is still unanswered.

The statement of profit or loss is the primary source of information about the entity's financial performance. As a default /in principle, all income and expenses should be appropriately classified and included in the statement of profit or loss, unless doing so does not provide relevant information or a faithful representation of performance.

In exceptional circumstances, the Board may decide to exclude some income or expenses from the statement of profit or loss, and include those in OCI, for example, income or expenses arising from a change in the current value of an asset or liability.

For other comprehensive income, a second principle states that these elements must be reclassified into the statement of profit or loss. However an exemption may be provided from this principle if, for example, there is no clear basis for identifying the period in which recycling to profit or loss would enhance the relevance and faithful representation of the information in that statement. If recycling does not result in such information, the Board may decide that income and expenses included in OCI are not to be subsequently recycled.
The tax relating to OCI must be presented under OCI, as per IAS 12. The presentation has an impact on the computation of performance evaluation indicators.

SOLUTION FOUR

(a)

(i) IFRS 2 – Share-based Payment – requires that the total estimated cost of granting share options to employees be recognised over the vesting period. The total estimated cost should be charged as a remuneration expense and credited to equity (IFRS 2 does not specify where in equity the credit should be made). The cumulative charge at the end of each period should be a proportion of the total estimated cost. The proportion should be based on the proportion of the total vesting period which has accrued at the reporting date. The incremental charge is a remuneration expense for any period and should be the difference between the cumulative charge at the end of the period and the cumulative charge at the start of the period. The charge should be based on the fair value of the option at the grant date. This continues to be the case throughout the vesting period – subsequent changes in the fair value of the option are not adjusted for. Where the vesting conditions are non-market conditions (i.e. not directly related to any change in the entity's share price), then the cumulative cost at each year end should be estimated based on the expected number of options which will vest at the vesting date.

(ii) If an entity grants cash-based share appreciation rights to employees rather than share options, then the basic principle of recognising the total estimated cost over the vesting period taking account of relevant vesting conditions is the same. However, since any ultimate payment will be made in cash, the credit entry to account for the remuneration expense is to liabilities rather than equity. Also, since any ultimate payment to the holders of share appreciation rights will normally be based on their fair value either at the vesting date or the payment date, subsequent changes in the fair value of the rights cannot be ignored. Measurement of the remuneration expense will be based on the fair value of the share appreciation rights at each reporting date.

(b)

Note 1 – Granting of options to sales staff

The expected total cost of the scheme at 31 March 2022 was K58,800 (100 – 10 – 20) x 200 x K4·20.Therefore cumulative cost accrued at 31 March 2022 would have been K19,600 (K58,800 x 1/3). The expected total cost of the scheme at 31 March 2023 is K79,800 (100 – 10 – 5 – 9) x 250 x K4·20. The cumulative cost accrued at 31 March 2023 is K53,200 (K79,800 x 2/3). Therefore the amount charged as a remuneration expense to profit or loss for the year ended 31 March 2023 will be K33,600 (K53,200 – K19,600).

Note 2 – Granting of share appreciation rights to senior executives.

The expected fair value of the total liability at 31 March 2023 will be K60,800 (500 x 19 x K6·40). The amount which will be shown as a liability in the statement of financial position at 31 March 2023 will be the proportion based on the period elapsed since the rights were granted compared with the total vesting period. In this case that proportion is 18/48. Therefore the closing liability will be K22,800 (K60,800 x 18/48). This will be shown as a non-current liability. The liability which would have been recognised in the statement of financial position at 31 March 2022 would have been K6,975 (500 x 18 x K6·20 x 6/48). Zamshare would show a remuneration expense in profit or loss of K15,825 (K22,800 – K6,975) in respect of the share appreciation rights for the year ended 31 March 2023.

SOLUTION FIVE

REPORT
To :
From :
Date :
Subject : Analysis of Financial Performance and Position of DENDE

We are aware the DENDE has expanded recently which has had a positive impact on revenue with an increase of 30% since last year. We know that as a result of the expansion a new range of products were launched on 1 May, hence we have not as yet seen a full year's impact. However, it would appear that this significant improvement in revenues has been at the expense of profitability as gross margins have actually fallen from 25.6% to 21.7%. The strategic move to cheaper products targeting the lower-priced market is likely to be one of the main reasons for this decline in margin. Another reason may be that DENDE has reduced the sales prices of the new products in order to undercut competitors and gain market share.

The directors have, however been pro-active in addressing overheads and as a result the operating profit margin has reduced by 1% to 6.5%. Within this, there has been a significant reduction in administrative expenses from the outsourcing of payroll. Administrative expenses have fallen from 8.0% to 4.3% of revenue which is a significant improvement. There has been an increase in distribution costs, but this is likely to be from supplying new customers as a result of the expansion. The control of overheads and the pro-active nature of the directors in this respect suggest good management.

The investment in associate has generated a good return for DENDE and as a result the net profit margin has increased from 4.1% to 6.1%.

The interest cover has fallen from 25.2 to 12.5 as a result of a significant increase in finance costs from K12 million to K40 million. The additional finance costs have arisen because of the change in the entity's financial structure. DENDE has moved from having a positive cash balance of K288 million to an overdraft of K116 million plus an increase of K280 million in long-term borrowings.

ROCE has suffered a significant decrease from 13.6% to 12.0% due mainly to the increased borrowings and the revaluation of non-current assets. The profit has increased slightly but perhaps the returns from the investments in PPE and inventories are still to come. It appears from the statement of financial position as if the cash has been utilised for the expansion. There has been an increase in property, plant and equipment, albeit some of this increase is likely to be from the revaluation in the year.

It is likely that cash has also been used to invest in inventories which have more than doubled in the period. The increase in inventories could be in line with the expansion strategy by holding greater amounts of the new products to meet increased future demand. However the inventories days have increased from 32 days to 51 days and hence, DENDE is tying up valuable working capital resources. DENDE must ensure that the more expensive original products are not held at an overstated value as a new cheaper alternative may render them obsolete.

The receivables days have increased from 47 to 65 days. This would normally suggest poor working capital management, however given that the directors have actively sought to control costs (outsourcing the payroll requirement) it is less likely that they have failed to control receivables while being short of cash. It could be that the new customer base has been offered more advantageous credit terms in order to increase customers and market share. It would still be a recommendation to review these terms to ensure that DENDE are offering something that it can actually afford to offer.

The current and quick ratios have both been affected by the reduction in cash but the increase in inventories has softened the impact on the current ratio. Both ratios still indicate adequate cover, but the fact remains that DENDE are in need of immediate funds
.
The increased borrowings have resulted in gearing more than doubling, however a gearing ratio of less than 20% would not normally be a concern and since there is still reasonable interest cover, the entity should still be able to afford to repay the interest on any new finance. One point to note is that the revaluation of PPE is a continuation of an existing policy rather than a deliberate attempt to boost capital employed and improve gearing.

A positive sign is that DENDE has approached us for long-term funding rather than compromising its position with suppliers by increasing payment period, which again indicates that the directors understand that an expansion will need to be funded by longer term borrowings. The payable days has increased only slightly from 31 to 35 days. In addition, the bonus issue in lieu of paying a dividend is a smart move. The entity cannot afford to pay a dividend but has significant retained earnings. The issue will still show shareholders that the directors are continuing to focus on meeting shareholder expectations.

DENDE appears to be a well-managed organisation in the process of expansion and I would recommend that the borrowing is considered further.

Appendix to the report – ratios

	2022	**2021**
Gross profit margin (GP/Revenue x 100)	1144/5260 x 100% = **21.7%**	1034/4044 x 100% = **25.6%**
Operating profit (Profit before associate and finance costs/revenue x 100)	(1144-228-576)/5260 x 100% = **6.5%**	(1034-326-406)/4044 x 100% = **7.5%**
PAT margin PFY/revenue x 100	320/5260 x 100% **6.1%**	164/4044 x 100% **4.1%**
Interest cover PBITt/finance cost	(460 + 40)/20 = **12.5 times**	(290 + 12)/6 = **25.2 times**
ROCE % PBIT/capital employed	500/(2590 + 400 + 116 - 280) x 100% = **12.0%**	302/(2094 + 120) x 100% = **13.6%**
Inventories Inventories / cost of sales x 365	580/4116 x 365 days = **51 days**	260/3010 x 365 days = **32 days**
Payables Payables/cost of sales x 365	398/2116 x 365 days = **35 days**	256/3010 x 365 days = **31 days**
Receivables Receivables /revenue x 365	936/5260 x 365 days = **65 days**	526/4044 x 365 days = **47 days**
Current ratio Current asset/current liabilities	1516/514 = **2.9**	1074/256 **= 4.2**
Quick CA – inventories/current liabilities	936/514 = **1.8**	814/256 = **3.2**
NCA turnover Revenue /PPE	5260/1108 = **4.7**	4044/836 = **4.8**

Total asset turnover	5260/(3504-280-600)	4044/(2470 –560)
Revenue / Total assets	= **2.0**	= **2.1**
Gearing	(116 + 400)/2590	120/2094
Debt/Equity	= **19.9%**	= **5.7%**

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA 3.2: ADVANCED AUDIT AND ASSURANCE

THURSDAY 15 DECEMBER 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)

Your firm of chartered accountants is the auditor of Kimberly Foods Plc, a food manufacturing company.

The food manufacturing industry is highly regulated with regards to the quantities of food preservatives that are added. During the year under review the company recalled a batch of tinned fruits that was sold in the month of August because it was established that the quantity of a preservative 'Patulin' added was materially higher than the quantity allowed. Your investigations revealed that management knowingly exceeded the allowed quantity of the preservative in order to give its products a longer shelf life. There is no disclosure of the fact that the company breached the law regarding the quantity of preservatives added to its products in the financial statements.

Kimberly Foods Plc buys its food preservatives from a foreign company based in Europe. This company is the major supplier of preservatives in the world and in the recent past it experienced a high demand resulting in it failing to supply the requirements for its overseas customers. The reduction in the supply of preservatives has adversely affected the operations of Kimberly Foods Plc resulting in the company failing to meet some of its orders to its own customers.

In order to secure supply of the raw materials used in the production of various food products, Kimberly Foods Plc acquired a mixed farm three (3) years ago. The farm has a large number of dairy animals whose milk is used in the manufacturing of milk products. The farm also has an orchard of oranges which it uses in the manufacturing of jam. At each period end, the Kimberly Foods Plc have stocks of finished processed foods and the company conducts an inventory count of dairy animals and the finished processed foods and work in progress. Kimberly Foods Plc uses the services of a management expert to value inventories.

Kimberly Foods Plc is a foreign owned company. There has been a change of government in the year. The main reason for the change of government is that the country has in the recent past experienced economic pressure resulting in lower disposable income for its citizens. This has impacted on many organizations negatively resulting in reduced margins for Kimberly Foods Plc and a demand for extended credit by the supermarket chains who are the major customers of Kimberly Foods Plc. Extended credit has resulted in serious liquidity problems for the company and banks are not willing to extend short term financing facilities to the company. One of the campaign messages of the party in power is that foreign owned companies require to partner with local investors for the renewal of operating licenses. Failure to do so will result in the non-renewal of the operating license.

You are the Audit Manager in charge of the audit of the financial statements of Kimberly Foods Plc for the year ended 31 December 2021. The audit plan is almost complete except for the inventory valuation substantive procedures that will require to be performed on the value of dairy animals in the financial statements, the value of the orchard and the processed finished food stuffs.

There has been an increase in demand for environmentally friendly companies in the country with green campaigners campaigning that customers should only buy goods manufactured by companies that consider the environment in their manufacturing processes. In response to this, many companies are now preparing environmental reports which are audited by external auditors to enhance their reliability. Kimberly Foods Plc has for the first time prepared an environmental report which contains the following information:

1. The emissions of Co_2 into the atmosphere from the manufacturing system of the company.
2. Correct disposal of hazardous substances from the manufacturing processes.

The Engagement Partner has requested you to consider the effect on the financial statements of environmental matters relating to Kimberly Foods Plc. He is worried that some figures in the financial statements may be misstated due to the impact of environmental matters and he would like you to assess the risk of these matters. Arising from the request by the Engagement Partner, you establish that there has been a significant change in the technological market and the environmental regulatory environment. This may call for an impairment review of the assets for companies such as Kimberly Foods Plc.

Required:

(a) Discuss the reporting requirements for non-compliance to the law regarding the quantity of Patulin added to dairy manufactured food. (6 marks)

(b) Identify and explain five (5) business risks in Kimberly Foods Plc. (10 marks)

(c) Draft four (4) audit procedures for each of the following in the audit of the financial statements of Kimberly Foods Plc:

(i) The value of dairy animals contained in the statement of financial position of Kimberly Foods Plc. (6 marks)

(ii) The value of the orchard of Orange trees in the financial statements of Kimberly Foods Plc. (6 marks)

(iii) The value of processed foods in the financial statements of Kimberly Foods Plc. (6 marks)

(d) Discuss the possible impact of environmental matters of the following in the financial statements audit of Kimberly Foods Plc:-

(i) The valuation of assets of Kimberly Foods Plc. (2 marks)
(ii) Provisions in the financial statements of Kimberly Foods Plc. (2 marks)
(iii) Contingent liabilities of Kimberly Foods Plc. (2 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt any THREE (3) questions in this section.

QUESTION TWO

Kariba Import & Export Ltd is a company involved in the manufacture, importation and sale of fertilizers in the country. The company was established ten (10) years ago and has been growing steadily over the years.

The company has a Board of Directors comprising executive and non-executive directors. Katongo who is the Finance Director is one (1) of the Executive Directors of the Board. During the year ended 31 June 2021, the company got into trouble when it was found that the bags of fertilizer sold by the company were underweight by five (5) kilograms each. One of the large customers of Kariba Import & Export Ltd discovered that the bags of fertilizer that he bought were all underweight.

When the farmer raised a complaint with the company, the Production Manager confirmed that the scale used was deliberately wrongly calibrated so that the actual weight is understated. Management was concerned about the reaction of the board concerning this matter. Katongo was assigned to approach the farmer and assure him that he would get a discount for the supply of underweight fertilizer and to plead with him that he should not report this matter to the relevant authorities.

Katongo was worried that if this matter got to the attention of the Weights and Measures Department of the government, the company would be in serious trouble and risks being shut down. Katongo called a meeting of all supervisors under his department and told them not to reveal to anyone that the company knowingly sold underweight fertilizer because this would impact on their continued employment. One (1) of the supervisors assured Katongo that he would never disclose any company information to the Weights & Measures Department because this would amount to a breach of the fundamental principle of confidentiality.

Kariba Import & Export Ltd owns a number of investment properties in different parts of the country. In the current year, a fair value exercise was carried out by the company on all the investment properties and the figures in the financial statements have been adjusted arising from this. There is an active property market in the country.

It was resolved at a Board of Directors meeting of Kariba Import & Export Ltd that a review of the adherence to ethical values and principles by staff of Kariba Import & Export Ltd should be carried out. It is the view of the Board of Directors that adherence to ethical values is a key to success of the company.

You have been assigned to conduct the audit of the financial statements of Kariba Import & Export Ltd and to also carry out a review of adherence to ethical principles in the company.

Required:

(a) Explain who is supposed to abide by the fundamental principles for accountants. (2 marks)

(b) Identify and explain four (4) ethical matters in Kariba Import & Export Ltd. (8 marks)

(c) Explain the audit risk with regards to amounts measured at fair value in the financial statements of Kariba Import & Export Ltd. (4 marks)

(d) Suggest four (4) audit procedures for the figures stated at fair value in the financial statements of Kariba Import & Export Ltd. (6 marks)

[Total: 20 Marks]

QUESTION THREE

You are an Audit Manager in a firm of chartered accountants. The audit field work for the audit of the financial statements for Brown Plc for the year ended 30 September 2021 has been completed. However, the following issues have been brought to your attention:

1. At the year-end there was a pending legal case. Management was of the view that the outcome of the case would be in favour of the company and no provision was made. However, on 17 October 2021, the High Court passed judgement against the company and the company was fined is K2 million.
2. The total receivables balance is K3 million. Included in this figure is an amount of K60,000 owed by the Finance Director of Brown Plc. No audit work has been performed on this receivables balance.
3. The depreciation amount is understated by K1 million. This is due to a system error which the information technology (IT) experts have failed to rectify. Management is not willing to pass a manual journal to correct this understatement.

The draft financial statements for the year ended 30 September 2021 show profit before taxation of K70 million (2021 – K50 million) and total assets K360 million (K320 million).

The Engagement Partner is expected to hold a meeting with the Board of Directors next week at which uncorrected misstatements will be discussed.

A Junior Auditor on the audit team has asked you to explain the term "projected misstatements".

Required:

(a) Explain the responsibility of the auditor regarding facts discovered after the date of the auditor's report but before the financial statements are issued. (5 marks)

(b) Explain, for the benefit of the Junior Auditor, what is meant by projected misstatements and state the action(s) to take if the auditors consider that the aggregate of misstatements may be material. (3 marks)

(c) For each issue brought to your attention, discuss the matters to consider including the possible impact on the audit opinion. (12 marks)

[Total: 20 Marks]

QUESTION FOUR

(a) You are the Quality Control Manager in your firm of Chartered Accountants. It is a policy of your firm to follow the provisions of ISQC 1: *Quality control for firms that perform audits and reviews of financial statements and other assurance and related services engagements.*

This standard gives guidance on quality control on acceptance and continuance of audit engagements. During the year under review, your firm responded to an advertisement by a prospective audit client for it to offer audit services. The Senior Partner asked you to obtain more information from the prospective client which will form the basis on which to bid for the offering of audit services. The information in the advertisement for audit services was not sufficient thereby necessitating the need to obtain further information from the prospective client.

You are also evaluating the existing clients with a view to deciding whether or not to continue offering audit services to them. This is despite the fact that some contracts with audit clients have two (2) or more years remaining.

Required:

(i) Discuss the rationale for annual evaluations of client relationships followed by your firm. (3 marks)

(ii) Suggest four (4) matters that you will enquire from the prospective audit client to enable your firm submit a bid to offer audit services. (2 marks)

(iii) State four (4) matters that should be included in the audit proposal for offering audit services to the prospective client. (4 marks)

(b) Zambezi Plc is a UK based investment company with subsidiaries in other countries. Zambezi Plc prepares consolidated financial statements for the Zambezi group of companies. Maxmin Chartered Accountants are the auditors of Zambezi Plc and they are also the auditors of the consolidated financial statements.

Magoye Ltd is a Zambian based subsidiary of Zambezi Plc and the auditors of Magoye Ltd are Bwalya & Associates. Magoye Ltd is a significant subsidiary of Zambezi Plc and the financial statements for the year ended 31 December 2021 have been finalized and the audit completed. Companies within the group trade with each other on credit and at the period end there are usually inventory items purchased from group companies in stock.

The Group management has issued instructions to the component companies as part of the consolidation process.

You are the Audit Manager in Maximin Chartered Accountants and you are planning the audit of the consolidated financial statements for the Zambezi Group of Companies.

Required:

(i) Identify and explain the component and group auditors in the audit of the group financial statements of the Zambezi Group of companies. (2 marks)

(ii) Discuss three (3) matters that you expect to be contained in the instructions issued by group management to components. (3 marks)

(iii) Describe the audit work that Maxmin Chartered Accountants should perform on Magoye Ltd's financial statements, a significant component of Zambezi Plc in the audit of group financial statements. (6 marks)

[Total: 20 Marks]

QUESTION FIVE

Luangwa Ltd is a company in the pharmaceutical industry. The company was established in 2010 and is in the manufacturing of drugs. In 2019, the company embarked on research with a view to developing a Corona 19 Vaccine. The company spent a significant amount of money on research and development.

Luangwa Ltd has been an audit client of H & D Chartered Accountants since inception in 2010. H & D Chartered Accountants issued unmodified audit opinions on the financial statements of Luangwa Ltd until last year when a qualified opinion was issued. This was as a result of a disagreement over the treatment of research costs in the year under review. H & D Chartered Accountants did not seek re-election as auditors for the year 2021.

You are a Partner in Rose & Co Chartered Accountants and your firm has been appointed auditor of Luangwa Ltd. This will be the first time that your firm will audit the financial statements of a company in this industry. Your firm has recruited Bwalya, who worked for H & D Chartered Accountants, as Audit Manager and he will be assigned to the audit of Luangwa Ltd.

During the year, before finalization of the preparation of the financial statements, the Finance Director of Luangwa Ltd resigned without giving notice. The company requested your firm to assist in the recruitment of a replacement. The pharmaceuticals industry is under strict regulation of the Zambia Medicines Regulatory Authority in ensuring the quality of drugs manufactured and also that expired drugs are not offloaded on the market. Luangwa Ltd hold large quantities of drugs at the period end and you plan to attend the inventory count.

You are planning the audit of the financial statements of Luangwa Ltd for the year ended 31 December 2021. You wish to develop the audit strategy and the audit plan which will be followed by the audit team.

Required:

(a) Discuss five (5) audit risks in the audit of the financial statements of Luangwa Ltd and suggest suitable responses that should be taken. (10 marks)

(b) Discuss four (4) matters that will be included in the audit strategy of the audit of the financial statements of Luangwa Ltd. (6 marks)

(c) Discuss the implication of the previous year modification of the opinion to the current year audit. (4 marks)

[Total: 20 Marks]

END OF PAPER

CA 3.2 ADVANCED AUDIT AND ASSURANCE

SUGGESTED SOLUTIONS

SOLUTION ONE

(a) **Reporting requirements – non-adherence with laws & regulations**:
ISA 250 *Consideration of laws and regulations in an audit of financial statements* gives guidance in the area of the auditor reporting identified non-compliance with laws and regulations.

Reporting of non-compliance is at three stages as follows:

1. **Reporting to those charged with governance:**
The non-compliance with laws and regulations by Kimberly Foods Plc is intentional with the full knowledge of management. The auditor is required to report this matter as a matter of urgency to those charged with governance which is the board of directors of Kimberly Foods Plc.

    If there is another body higher than the board of directors, the auditors would be required to report the non-compliance to that body as well.

2. **Reporting to the users of the auditor's report:**
Since the result of the evaluation of non-compliance with laws and regulations is that it has a significant impact on company and its ability as a going concern and management has not disclosed this in the financial statements, the auditors should consider the implication this has on the audit opinion.

    The auditor will issue a modified opinion as a result and the basis for modification will explain for the benefit of the users of audit report the reasons for the modification which will be the non-compliance with laws and regulations.

3. **Reporting to third parties – the regulatory and enforcement authorizes**:
The auditor will require to consider his position with regards to the fundamental principle of confidentiality when deciding whether to report to the regulatory authority.

    There are exceptions to the principle on confidentiality and there are instances when the auditor is required to report and not reporting would be considered criminal. The non-compliance to laws and regulations by Kimberly Foods Plc borders on criminality because it was done intentionally. The auditors will be required to make a formal report to the regulator and this will not be in breach of the rules on confidentiality.

(b) Business risks in Kimberly Foods Plc.:

1. **Non-compliance with laws and regulations**:
In a highly regulated industry Kimberly Foods Plc risks having its operating licence if it is found in breach of laws and regulations. The stiffest punishment by the regulator is withdrawal of the operating licence.

2. **Risk of litigation for excessive preservative**:

Kimberly Foods Plc risks being sued by any injured party as a result of the excessive preservative used. Any interested party who may develop a medical condition may sue for compensation. This could damage the reputation of the company and could result in reduced sales.

3. **Lack of materials due to shortages from supplier**:
   Kimberly Foods Plc is experiencing a shortage of the much needed preservatives required in its production. The company may have no other source of the preservatives and this may adversely affect the operations of the company. The ability of Kimberly Foods Plc as a going concern may be doubted.

4. **Failure to get bank financing**:
   The unwillingness by banks not to extend short term credit to Kimberly Foods Plc will have serious implications for the company. Unless the company can access other sources of short term financing, it will have problems managing its operations due to the impact of liquidity problems that may be faced.

5. **New regulation to partner with local investors**:
   The new regulation requiring foreign owned companies to partner with locals could impact the going concern of Kimberly Foods Plc if the foreign owners are not for this idea. In the event that this is the case, the operating license will be revoked.

6. **Failure to meet environmental requirements**:
   There is increasing pressure from interested parties, particularly the green campaigners against companies that are not environmentally friendly. Many customers are switching their custom to environmentally friendly companies and if Kimberly Foods Plc is not compliant, it risks losing customers. This can result in reduced revenue resulting in the company experiencing losses.

(c) (i) **Audit procedures for value of dairy animals:**

- Attend the inventory count for dairy animals at the period end to test for the assertion of ***existence.***
- Assess the competence of the valuer engaged to value inventory by Kimberly Foods Plc and assess how independent he is from Kimberly Foods Plc
- Confirm the valuation of the dairy animals are based on fair values as required by IAS 41 *Agriculture.*
- Establish and assess how fair value were determined and review the assumption made by the valuer.
- Engage an auditor expert to independently value inventory if the auditor does not wish to rely on the work of the management expert.

(ii) **Audit procedures for the value of oranges**:

- Attend the physical verification of the orchard to determine the number/size of orange trees.
- Engage an auditor expert to value the orchard.
- Assess the assumptions used by the valuer for reasonableness.

- Confirm that the orange trees have been accounted for in the same way as property, plant and equipment in accordance with IAS 16.
- Confirm that the value of growing produce on bearer plants is not included in the cost of bearer plants but accounted for under IAS 41 Agriculture measured at fair value.

(iii)**Audit procedures for the value of processed foods:**

- Attend inventory count for harvested fruits and finished processed foods.
- Assess how expired and damaged foods are identified.
- Ensure that the damaged/expired finished products are written off.
- Confirm that the value of processed foods are valued in accordance with IAS 2 *Inventories.*
- Ensure that picked fruits are accounted for under IAS 41.

(d) **Impact and risk of environmental matters on the following**:

(i) **Asset valuation:**

According to IAS 36 *Impairment of assets* one of the reasons for carrying out an impairment review of assets is when there is a significant change in the technological, market, legal or economic environment of the business in which the asset is employed.

In the case of Kimberly Foods Plc there has been a significant change in environmental regulatory environment requiring that an impairment review should be carried out. The audit risk is that an impairment review has not been done resulting in a misstatement of the asset valued.

(ii) **Provisions:**

IAS 37 *Provisions, Contingent Liabilities and Contingent Assets* gives examples of when a provision should be made in the financial statements. One such example is contaminating land. Kimberly Foods Plc deals in hazardous substances which should be properly disposed of. There is a risk that this is or has not been done which could give rise for the need to make a provision in the financial statements.

If there is a contamination of land in the year and the criteria in IAS 37 is met, then a provision should be made. Therefore, provisions could be misstated due to environmental matters.

(iii) **Contingent liabilities:**

IAS 37 defines a contingent liability as an obligation that arises from past events whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the entity.

Because of the uncertainty contingencies are not recognized in the financial statements but must be disclosed. In the case of Kimberly Foods Plc, a contamination of land which does not meet the conditions in IAS 37 may meet the conditions for a contingent liability. There is an audit risk that such contingencies may not be disclosed as required resulting in the misstatement of the financial statements.

SOLUTION TWO

(a) **Those supposed to adhere to the fundamental principles:**
Fundamental principles for accountants must be followed by all members of the Zambia Institute of Chartered Accountants (ZiCA). This includes students studying for the ZiCA qualification and members who have successfully completed their accountancy studies.

Fundamental principles should be complied by all regardless of the nature of work that the member performs. This means that members working as accountants and involved in the process of preparation of financial statements are required to adhere to the fundamental principles. Those members who are in practice either as auditors or offering other non-audit services are also supposed to adhere to the fundamental principles.

In the case at hand, all accountants working for Kariba Import & Export regardless of the role they play they are subject to the fundamental principles.

(b) **Ethical issues in the audit of the financial statements of Kariba Ltd:**

(i) The action by Katongo of trying to conceal the fact that the company knowingly sold underweight fertilizer if breach of the fundamental principle of **integrity.** This principle requires that accountants should be straight forward and honest in their business dealings. Katongo has failed in this regard.

(ii) The staff under in the Finance Department who are supposedly accountants and members of the ZiCA are required to be **objective.** This means that they should use their professional judgment in making decisions and they should not be influenced by others. In this case, they have on instructions of the Finance Director concealed the truth instead of reporting this matter to competent authorities.

(iii) The action of Katongo and the staff under his department of concealing an illegal act will bring the name of the accountancy profession and ZiCA in disrepute. The regulator in this case the Weights & Measures Department will hold the accountancy profession in bad spirit and this act will bring disrepute to the profession. The act is a breach of the fundamental principle of **Professional behaviour.**

(iv) **Confidentiality** is one of the fundamental principles for accountants. This requires that accountants should not disclose to third parties information that comes to them by virtue of their work to third parties without the authority of the employer.

There are exceptions to this principle such as when the public interest is at stake. The agreement by staff in the Finance Department on the basis of following the fundamental principle of confidentiality is misplaced. By not disclosing this to responsible authority they are actually not following the principle that when the public interest is at stake accountants can disclose information without prior approval from the employer or client.

(c) **Audit risk with regards to amounts stated at fair value:**

Inherent risk is the risk that some financial statements assertions are risky because of the nature that they possess. Fair values are accounting estimates and accounting estimates cannot be measured precisely.

There is subjectivity in measuring fair values where fair value accounting is appropriate. There is a risk that management bias may exist in determining fair values in order to present a desired outcome.

(d) **Audit procedures amounts stated at fair value:**

(i) Obtain details of all the properties that have been revalued arising from a fair value exercise.

(ii) Confirm that the revaluation surpluses/deficits have been correctly adjusted in the figures in the financial statements.

(iii) Review the basis of management reaching the fair values and compare with the prices in the market for property.

(iv) Assess the assumptions by management for reasonableness.

(v) Where estimates for fair value are based on future actions by management such as carrying out certain actions:
- Evaluate management's history of carrying out the stated actions.
- Consider ability of management taking the specified actions considering the economic status of the entity.

(vi) Come up with an auditor's point estimate and compare with management's point estimates.

(vii) Obtain written representations with regards the fair values and that management believes the values are the best under the circumstances.

SOLUTION THREE

(a) **Responsibility of the auditor regarding facts discovered after the date of the auditor's report but before the financial statements are issued**

ISA 560 *Subsequent Events* deals with this issue. The standard states that the auditor has no obligation to perform any audit procedures regarding the financial statements after the date of the auditor's report. However, if after the date of the auditor's report but before the date the financial statements are issued, a fact becomes known to the auditor that, had it been known to the auditor at the date of the auditor's report, may have caused the auditor to amend the auditor's report, the auditor shall:

- Discuss the matter with management and where appropriate, those charged with governance
- Determine whether the financial statements need amendment and, if so
- Inquire how management intends to address the matter in the financial statements.

(b) **Projected misstatements and action(s) to take**

Projected misstatements are the auditor's best estimate of misstatements in populations and involve the projection of misstatements identified in audit samples to the entire population from which the sample was drawn.

If the auditors consider that the aggregate of misstatements may be material, they must consider:

- Reducing audit risk by extending audit procedures or
- Requesting management to adjust the financial statements (which management may wish to do anyway).

(c) **Matters to consider**

Pending legal case

- **Materiality –** The fine of K2 million represents 2.9% (2/70 X 100%) of profit before taxation and 0.5% (2/360 X 100%) of total assets. This is therefore immaterial to both the statement of profit or loss and statement of financial position.
- **Risk of misstatement –** There is a risk that profits could be overstated and liabilities understated.
- **Accounting treatment –** According to IAS 37 *Provisions, Contingent Liabilities and Contingent Assets* there is a liability which needs to be provided for.
- **Impact on auditor's opinion –**It is unlikely that the auditor's opinion will be modified since the issue is immaterial.

Amount owed by Finance Director

- **Materiality –** The K60,000 owed by the Finance Director is material by nature since it involves a related party.
- **Risk of misstatement –** There is a risk that the required disclosures have not been made in the financial statements.
- **Accounting treatment –** According to IAS 24 *Related Party Disclosures* the amount of K60,000 must be appropriately disclosed.

- **Impact on auditor's opinion –**It is likely that the auditor's opinion will be modified, in the form of a qualified opinion.

Depreciation

- **Materiality –** The understatement of K1 million represents 1.4% (1/70 X 100%) of profit before taxation and 0.3% (1/360 X 100%) of total assets. This is therefore immaterial to both the statement of profit or loss and statement of financial position.
- **Risk of misstatement –** There is a risk that both profits and assets are overstated.
- **Accounting treatment –** According to IAS 16 *Property, Plant and Equipment* the carrying value of non-current assets must be the depreciated cost.
- **Impact on auditor's opinion –**It is unlikely that the auditor's opinion will be modified since the issue is immaterial.

SOLUTION FOUR

(a) (i) **Rationale of annual client evaluations:**

Auditors should only accept or continue with audits if there are no ethical matters of concern and if the pre-conditions for an audit are present.

If there are ethical matters for which there are no suitable safeguards, the auditor should not accept appointment and consider resigning in the case of existing clients.

ISQC 1 *Quality control for firms that perform audits and reviews of financial statements, and other assurance and related services engagement* provides guidance with regards to quality control and acceptance and continuance of audit engagements.

The standard provides that the firm should only accept or continue a client relationship where:

- The firm is competent to perform the engagement,
- That the firm has complied with relevant ethical requirements and
- It has considered the integrity of management.

Once the firm has accepted appointment it must evaluate its clients annually on the basis of the above criteria.

(ii) **Additional matters to enquire before submitting bid for audit services:**

- Details of the nature of the industry that the prospective audit client is in.
- Whether the prospective is seeking its first auditors or you will be replacing outgoing auditors.
- Details of the requirements and expectations of the prospective client. Is the engagement going to be for audit services only or there is a requirement for other services.
- Brief details of the future plans of the company. Is it expecting to grow or diversify into other areas?

(iii) **Matters that will be included in audit proposal:**

- Details of how the firm proposes to meet the requirements of the prospective client.
- The fees to be charged and the basis of how they have been calculated.
- The proposed approach to the engagement.
- A brief outline of the firm including size and locations where present.
- A brief outline of the firm's key staff in terms of qualifications and experience.
- References of similar audits in the industry of the prospective client if there are some.

(b) (i) **Component and group auditors:**

The group auditors are the auditors who audit the group financial statements. In the case at hand, the group auditors are Maxmin Chartered Accountants.

Component auditors are the auditors of subsidiaries. In the case at hand, Bwalya & Associates the auditors of the Zambian subsidiaries are the component auditors.

(ii) **Matters included in instructions to components**:

- The timetable within which the component financial statements and audit should be concluded because the component financial statements will form part of the consolidated financial statements.
- That the component management should co-operate with the group auditors by giving information as they will require.
- The need to use uniform policies similar to those used by the rest of the group.
- To prepare financial statements in accordance with the IFRSs.

(iii) **Work on financial statements of significant component:**

For components that are considered significant from the group's point of view the group auditors are required to perform audit procedures. ISA 600 *Special considerations – audits of group financial statements (including the work of component auditors*) gives guidance in this area.

- Meet the component management and auditors and obtain an understanding of the component and its environment.
- Review the audit strategy and audit plan of the component and confirm satisfactory for the purpose of the group audit.
- Review the documentation of the component auditor of identified risk areas.
- Perform audit procedures on risky areas where evidence cannot be obtained through reliance on the work of component auditors.
- A full audit of the financial statements of significant components should be using group materiality should be performed by the component auditors or the group auditors.

SOLUTION FIVE

(a) **Audit risks in the audit of the financial statements of Luangwa Ltd:**

(i) **High regulation of pharmaceutical industry**:

The pharmaceutical industry is highly regulated by Zambia Medicines Regulatory Authority. There are penalties for non-compliance with regulations which could result in penalties or in the extreme case withdrawal of the operating licence.

There is an audit risk in that provisions may be misstated or the basis of the going concern assumption could be inappropriate.

Audit response:

Being alert, during the audit, for any evidence that there is non-compliance with laws and regulations. This requires the application of professional scepticism by the audit team when performing the audit. Perform audit procedures in line with ISA 250 *Consideration of laws and regulations in an audit of financial statements.*

(ii) **Accounting for research and development expenditure:**

Research and development expenditure should be written off against income unless development expenditure meets conditions specified in ISA 38 *Intangible assets.*

There is an audit risk that the financial statements may be misstated due to misstatements of the research and development costs.

Audit response:

Obtain evidence that any development costs capitalized meet the conditions of IAS 38 and obtain written representations from management as necessary.

Review the assumptions made in reaching the conclusion that development costs should be capitalized.

(iii) **First time client in pharmaceutical industry:**

The fact that this will be the first client in the pharmaceutical industry that Rose & Co Chartered Accountants will be auditing means that the firm may not have the necessary skills and competences. The detection risk is high in that the auditors may not detect material misstatements due to lack of skills and competences.

Audit response:

The audit firm may require to recruit staff with requisite experience in this industry. Further, consideration of the use of auditor experts may be required in areas that the auditors do not have the required skills. Lastly, enhancing quality control reviews will reduce this risk.

(iv) **Opening balances:**

The previous financial statements of Luangwa Ltd were audited by a different firm of auditors. The opening balances in the financial statements have an impact on current year figures so that if they are misstated they could result in the financial statements under review being misstated.

The audit risk is that the opening balances have been misstated and could impact on the current year figures.

Audit response:
Perform audit procedures on the opening balances in accordance with the provisions of ISA 510 *Initial Audit Engagements – Opening Balances.* There will be need to obtain evidence on the opening balances.

(v) **Resignation of the Finance Director:**
The Finance Director is key with regards to the preparation of financial statements of a company. He probably is a highly qualified person who ensures preparation of financial statements in accordance with IFRSs.

The sudden resignation of the Finance Director will have led to a vacuum in terms of someone to oversee the preparation of the financial statements. The chance that figures in the financial statements may be wrong is high and these could be material to the financial statements.

Audit response:
The auditors will require to apply professional scepticism during the audit and look out for things that could go wrong. More substantive tests may require to be performed than if there was a Finance Director in place.

(vi) **Valuation of inventory:**
Drugs manufactured by manufacturing companies have a lifespan after which they cannot be used. Manufacturers are required to state the expiry date of all manufactured drugs.

The expired drugs are supposed to be valued at the net realizable value which will be less than cost. There is an audit risk that expired drugs at the period end will be overstated resulting in the overstatement of profit.

Audit response:
Attend the year-end inventory count and confirm that expired drugs are identified during inventory count. Confirm valuation of the expired drugs and ensue valued at the lower of cost and net realizable value.

(b) **Matters that will be included in the audit strategy**:
The audit strategy will include in general terms how the audit assignment will be carried out. In the case of the audit of the financial statements of Luangwa Ltd this will include the matters below:

Characteristics of the engagement and understanding the entity:
Including the nature of the industry the client is involved in and the major risks that exist. The tasks that will be performed in this case being an audit of the financial statements only.

Risk and materiality:
A preliminary assessment of the risks in the client company both audit and business risks and the materiality levels that will be applied in the audit.

Nature, timing and extent of procedures:

This will include details of whether a combined approach will be used or only a substantive approach. Details of the timing of when work will be carried out whether there will be an interim audit or all work will be carried out at the final audit.

Co-ordination, direction, supervision and review:
Details of how the audit work will be coordinated by the audit team. The requirement for supervision and reviews of all work done.

The extent of the resources available to undertake the audit:
Consideration of the audit will fit in with the other audits that the client has. Indications of when the audit will commence and the availability of the manpower resources that are required and if outsourcing by using experts will be required.

(c) **Implication of the previous modification to the current opinion:**
The auditor is required to form an opinion on the financial statements based on the evidence that they have gathered and evaluated.

In the event that the previous year financial statements were audited by different auditors and a modified opinion was issued, the impact on the current year opinion depends on what has been done by the client with regards to the matter that caused the modification.

If the reason for the modification has been resolved and does not affect the current year financial statements, the current year audit opinion will be unmodified unless there are reasons in the current year for modifying the opinion.

If on the other hand, the reasons for the modification of the previous year financial statements still exist and impacts on the current year financial statements, the current year auditor should issue a modified opinion.

END OF SUGGESTED SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATION

CA ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA 3.4: ADVANCED TAXATION

THURSDAY 15 DECEMBER 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)

You should assume that today is 15 December 2021 and that the taxation rules applicable to the tax year 2022 apply throughout.

Chipapa wishes to commence in business on 1 January 2022 running a retail trade. He wishes to involve his son Kapapa in running the business. Chipapa is not sure whether from a taxation point of view it will be beneficial to take on Kapapa as a partner and run the business as a partnership or form a limited company and run the company together with Kapapa as full-time working Directors.

The two entrepreneurs have approached you seeking taxation advice to enable them decide whether to run the business as a partnership or as a company and how they should extract the profits from the business in the event that the business is ran as limited company. Once they have obtained this advice, they will register the appropriate business and commence to trade on 1 January 2022.

Their business is expected to produce an annual turnover of K5,600,000 whether it is run as a partnership or as a company. The net profit as per accounts is expected to be K2,500,000, before deducting any payments to Chipapa and Kapapa and any NAPSA contributions arising whether the business is run as a partnership or as a company. All the other expenses that will be incurred and deducted in arriving at the net profit figure of K2,500,000 are allowable expenses for taxation purposes.

Whether the business is run as a partnership or as a company, Chipapa and Kapapa will use their own private personal motor cars which each individual will buy in January 2022, partly for business purposes. Business mileage will be 60% of the total mileage done in each motor car and the remainder will be for private purposes. The motor cars will be a Toyota Hilux Double cab van costing K560,000 and having a cylinder capacity of 3,000 cc and a Ford Ranger Double cab van costing K500,000 and having a cylinder capacity of 2,960 cc. Chipapa will drive the Toyota Hilux Double cab van while Kapapa will drive the Ford Ranger Double cab van. The following additional information relating to each option is available:

Partnership

Under this option Chipapa will involve Kapapa in running the business as a partner. Chipapa will draw an annual partner's salary of K280,000 and Kapapa's annual partnership salary will be K230,000. Each individual will additionally draw an allowance of K40,000 per year to meet the motor car running expenses which will be incurred by each individual on each vehicle. National Pension Scheme Authority (NAPSA) contributions will not be payable. The balance of any profits or losses will be shared equally between Chipapa and Kapapa.

Company

If the business is run as a company, the company will be called Chipaka Ltd. Chipapa and Kapapa will be the only shareholders and full-time working Directors in the company. Chipapa and Kapapa will each draw an annual allowance of K40,000 as a motoring allowance to meet the cost of motor car running expenses which will be incurred by each individual on each motor vehicle. Chipapa wishes to further draw an additional amount of K280,000 per year either as a gross director's salary or as a gross dividend, whilst Kapapa wish to draw a further additional amount of K230,000 per annum either as a gross director's salary or as a gross dividend. NAPSA contributions will be payable where applicable by both the Directors and Chipaka Ltd at the rate of 5% of the relevant gross earnings.

NAPSA Earnings threshold

The NAPSA earnings threshold for the year ending 31 December 2022 is K293,232 per annum.

Required:

(a) Calculate the amounts of income tax payable by Chipapa and Kapapa for the tax year 2022, assuming that the business is run as a partnership. (9 marks)

(b) Assuming the business is run as a limited company and Chipapa and Kapapa each draw the additional amounts of K280,000 and K230,000 respectively as gross annual salaries compute:

(i) The income tax and NAPSA contributions payable by Chipapa and Kapapa for the tax year 2022. (9 marks)

(ii) The income tax payable by Chipaka Ltd for the tax year 2022 (6 marks)

(c) Assuming the business is run as a limited company and that Chipapa and Kapapa each draw the additional amounts of K280,000 and K230,000 respectively as gross annual dividends of, compute:

(i) the ***NAPSA contributions***, ***withholding tax*** and ***income tax payable*** by Chipapa and Kapapa for the tax year 2022. (5 marks)

(ii) The income tax payable by Chipaka Ltd for the tax year 2022. (4 marks)

(d) Advise Chipapa and Kapapa as to whether they should run their proposed business as a:

(i) Partnership
(ii) Limited company with Chipapa and Kapapa individual drawing the additional annual amounts K280,000 and K230,000 respectively as ***gross director's salaries***
(iii) Limited company with Chipapa and Kapapa each drawing the additional amounts of K280,000 and K230,000 respectively as ***gross dividends***.

Your answer should be supported by appropriate computations of net income arising under each of the above three (3) options after deduction of all the relevant statutory payments arising under each option. (7 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt any THREE (3) questions

QUESTION TWO

SWA Zambia Plc is a Zambian resident company engaged in mining operations of copper in Zambia. It is a 60% owned subsidiary of GHT international, a foreign multinational mining company based in a foreign country.

The group maintains its accounts in the United States Dollars (USD). The company's net profit before taxation for the year ended 31 December 2022 was K1,386,794.

This figure was arrived at after charging the following:

	K
Cost of sales (note 1)	2,567,000
Mineral royalty tax	362,375
Environmental costs (note 2)	697,500
Operating expenses (note 3)	973,600
Finance cost	125,800

Note 1: Cost of sales

Included in costs of sales are depreciation charges of K514,000 and a loss on disposal of old mining equipment of K78,000,

Note 2: Environmental costs

This includes provision for environmental expenditure of K334,500, fines for breach of environmental regulations K100,000 and environmental restoration costs of K263,000 for an old mining site which was closed a few years ago.

Note 3: Operating expenses

These include site evaluation and exploration expenses of K286,700, drilling expenses of K198,000, an extension to the only school in the mining township of K288,900 and other allowable operating expenses of K200,000.

Note 4: Implements, plant and machinery

At 1 January 2022, the company held mining equipment which was acquired from foreign suppliers a year ago and paid for in US dollars at an original cost equivalent to K650,000.

During the year, the company sold some old mining equipment for disposal proceeds of K180,000 which had an income tax value of K95,000.

The rest of the implements, plant and machinery qualifying for capital allowances had zero income tax values on 1 January 2022.

Note 5: unrelieved loss brought forward

The company generated a tax adjusted loss of K1,075,000 in the year 2019 and tax adjusted profits of K522,000 and K702,675 in the years 2020 and 2021 respectively.

Note 6: Indexation formula

The indexation formula for capital allowances and mining losses where applicable is provided below:

$$1+\frac{(R_2-R_1)}{R_1}$$

Note 7: Exchange rates

The following exchange rates have been provided by the bank of Zambia and approved by the Commissioner General.

Year ended	K/USD	Year ended	K/USD
31 December 2019	15.00	31 December 2021	17.20
31 December 2020	16.50	31 December 2022	17.70

Required:

(a) Show how the mining loss incurred in the year ended 31 December 2019 will be relieved in each of the relevant tax years and show the amount of any unrelieved loss at 31 December 2021. (7 marks)

(b) Compute the income tax payable by SWA Zambia Plc for the tax year 2022.

(13 marks)

[Total: 20 Marks]

QUESTION THREE

You are a Tax Consultant in a reputable firm called Chungu Associates. Your client, Manyepa returned from a country called Riveria on 1 March 2022. He was employed by Tributary Ltd while in Riveria.

Manyepa was born in Zambia on 5 January 1980 and has been in Riveria for the past seven (7) years. Riveria operates a hybrid taxation system and has managed to seal a number of loopholes in the country's tax system. The Riverian Tax Authority (RTA) consistently exceeds revenue targets set by Parliament and is ranked highly by the International Monetary Fund (IMF).

On 1 May, 2022, Manyepa was employed by Bream Fisheries Ltd as a Production Director, on a five (5) year contract. He was entitled to a basic monthly salary of K90,000 and an all-inclusive allowance of 50% of his basic pay. He was immediately provided with accommodation in a company owned house. The house had a market value of K4.6 million and had it been let out, the company would have charged commercial rentals of K10,000 per month. The company also provided him with a personal-to-holder motor car with a cylinder capacity of 2,500cc and paid for all motor car running expenses which amounted to K6,000 per month. His private use in the motor car for the tax year

2022 is estimated to be 30%. He made life assurance premium payments of K5,000 per month and Pay As You Earn (PAYE) deducted from his emoluments for the tax year 2022 amounted to K183,000.

The currency of Riveria is the Riverian Dollar (R$). On 30 November 2022, Manyepa received R$6,000 rental income from property let out in Riveria, R$9,200 dividends form quoted shares of companies listed on the Riverian Securities Exchange (RSE) and R$1,000 interest from loan notes of companies in Riveria. All the incomes from Riveria are net of withholding tax at the rate of 20% deducted in Riveria. There is no double taxation agreement between Zambia and Riveria. When computing Zambian income tax payable, credit is available for any foreign tax paid in Riveria. An exchange rate of K17.30 per R$ should be used where relevant.

On 31 Decmber 2022, Manyepa received dividends amounting to K34,000 from Lion Cement Ltd, a non-mining Zambian resident company.

Required:

(a) Explain any three (3) systems of international taxation. (6 marks)

(b) Advice Manyepa on the tax treatment of the foreign income received. (3 marks)

(c) Compute the income tax payable by Manyepa for the tax year 2022. (11 marks)

[Total: 20 Marks]

QUESTION FOUR

Zebra Group of companies carries on business as a distributor of specialised vehicles used in game parks and importer of quality powdered goat milk into the Republic of Zambia. Zebra Plc is the parent company and was listed on the Lusaka Securities Exchange (LuSE) on 1 January 2010. It was initially established to only distribute specialised vehicles used in game parks. However, in 2015, it diversified its activities to include the import and distribution of quality powdered goat milk, and expanded its operations by the acquisition of two (2) subsidiaries in the Republic of Zambia (Snake Ltd and Lizard Plc) and one (1) in Saudi Arabia.

The tax adjusted business profits for the group companies for the recent tax years are as follows:

Tax years	**2020**	**2021**	**2022**
	K'000	**K'000**	**K'000**
Zebra Plc	4,000	6,000	10,000
Zambian subsidiaries			
- Snake Ltd	(2,000)	(3,700)	(6,000)
- Lizard Plc	(500)	2,000	3,000
Saudi Arabian subsidiary (Kwacha equivalent)	8,000	13,000	20,000

The Directors are worried about the performance of Snake Ltd and are considering selling it. The Group Finance Director is, however, not sure about the tax treatment of group losses and tax treatment of Snake Ltd's exit from the group.

The Group Managing Director is against the sale of Snake Ltd. He believes downsizing the operations of Snake Ltd and transferring property to either Lizard Plc or the Saudi Arabian subsidiary could save

Snake Ltd. According to a number of financial analysts, disposal of Snake Ltd could be misinterpreted and eventually have a negative impact on the share price for Zebra Plc.

Required:

(a) Explain the treatment of group losses and whether the losses for Snake Ltd could be transferred to another group company. (6 marks)

(b) Explain the meaning of group of companies and the property transfer tax (PTT) implications regarding the internal reorganisation within the Zebra group of companies. (6 marks)

(c) Calculate the company income tax liabilities for Zebra Plc, Snake Ltd and Lizard Plc for the tax years 2020, 2021 and 2022, using the 2022 income tax rates. (8 marks)

[Total: 20 Marks]

QUESTION FIVE

The Statement of profit or loss of SSG Bank Plc is provided below:

SSG BANK PLC STATEMENT OF PROFIT OR LOSS FOR THE YEAR ENDED 31 DECEMBER 2022

	K'000	K'000
Interest Income from;		
loans and overdrafts	70,000	
Securities(note 1)	12,000	
Banks and other financial institutions	5,000	
Total interest income		87,000
Interest expense :		
On deposits	25,000	
On subordinate debt	15,000	
Paid to other banks and financial institutions	15,000	
Total interest expenses		(55,000)
Net Interest Income		32,000
Loan loss provision (note 2)		(16,500)
Net-interest income after provision for loan losses		15,500
Non -interest Income		
Fee income (Note 3)	3,800	
Commissions (Note 4)	800	
Other non-interest income (note 5)	14,900	
Total Non-interest Income		19,500
Net Interest and other Income		35,000
Non-interest expenses(note 6)		(13,950)
Net Income Before Taxation		21,050
Taxation (note 7)		(6,300)
Net Income for the financial year		14,750

Note 1: interest income from securities

This comprise of interest received on short-term securities which was subjected to withholding tax at 15% deducted at source.

Note 2: Loan loss provision

Loan loss provisions comprise the following items:

	K'000
Increase in general provisions for loan losses	8,000
Decrease in specific provision for loan losses	(6,500)
Irrecoverable loans written of	12,000
Loan previously written off now recovered	3,000
	16,500

Note 3: Fee income

Fee income includes the following items:

	K'000
Overdraft fee	1,500
ATM Charges	200
Account maintenance fees	1,900
Unrealised trading gains	300
Realised trading gains	100
Unrealised foreign exchange losses	(200)
	3,800

Note 4: Commissions

Commissions represent:

	K'000
Commissions paid on telegraphic transfers	(1,900)
Commissions received on telegraphic transfers	2,700
	800

Note 5: other non-interest income

This comprises:

	K'000
Royalties (gross)	2,000
Dividend income (gross)	6,900
profit on disposal of investments	6,000
	14,900

Note 6: Non- interest expenses

These included:

	K'000
Salaries	8,600
Audit fees	500
Repairs and maintenance	750
Depreciation	1,300
Pension contributions	500
Impairment losses	900
Operating lease charges for business assets	1,400

13,950

Note 7: Taxation
This represents the provisional income tax paid by the company for the tax year 2022.

Note 8: Implements, plant and machinery
Capital allowances on Implements, plant and machinery for the year were determined to be K1,090,000.

Note 9: Future plans
The bank is considering building additional offices at its premises in the coming year 2023. This will be necessary due to a significant increase in the volume of business during the year 2022. The bank will require additional staffing to cope with the increase. It is considering raising the capital for this project by means of issuing additional ordinary shares or convertible bonds.

Required:

(a) Calculate SSG Bank Plc company income tax payable for the tax year 2022. (10 marks)

(b) Advise the Directors of SSG bank of the taxation implications of using equity finance and convertible bonds both from the point of view of the company and from the point of view of an individual investor. (10 marks)

[Total: 20 Marks]

END OF PAPER

CA 3.4 ADVANCED TAXATION

SUGGESTED SOLUTIONS

SOLUTION ONE

(a) ALLOCATION OF PROFITS AND COMPUTATION OF INCOME TAX PAYABLE BY PARTNERS

	Total	Chipapa	Kapapa
	K	K	K
Salaries	510,000	280,000	230,000
Motor car allowances	80,000	40,000	40,000
Total appropriations	590,000	320,000	270,000
Balance (1:1)	1,910,000	955,000	955,000
	2,500,000	1,275,000	1,225,000
Motoring expenses incurred by:			
- Chipapa (K40,000 x 60%)		(24,000)	
- Kapapa (K40,000 x 60%)			(24,000)
Capital allowances on:			
Chipapa's Veihicle			
(K560,000 x 20%) x 60%	(67,200)	(67,200)	
Kapapa's vehicle			
(K500,000 x 20%) x 60%	(60,000)		(60,000)
Taxable profit	2,372,800	1,153,800	1,141,000
Income Tax			
On the first K82,800		8,460	8,460
On the excess			
K1,101,000/K1,058,200 x 37.5%		412,875	396,825
		421,335	405,285

(b) (i) PERSONAL INCOME TAX COMPUTATIONS FOR:

	Chipapa	Kapapa
	K	K
Salaries	280,000	230,000
Motor car allowances	40,000	40,000
Gross earnings	320,000	270,000
Less allowable deductions		
Motor car running expenses		
(K40,000 x 60%)	(24,000)	(24,000)
Capital allowances on:		
-Chipapa's vehicle		
(K560,000 x 20%) x 60%	(67,200)	
-Kapapa's vehicle		
(K500,000 x 20%) x 60%		60000
	228,800	186,000
Income Tax		
On the first K82,800	8,460	8,460
On the excess		
K146,000/K103,200 x 37.5%	54,750	38,700

Income Tax payable	63,210	47,160

COMPUTATION OF EMPLOYEE'S NAPSA CONTRIBUTION

(1) Chipapa's employee's NAPSA Contributions

K293,232 x 5% = K14,662

(2) Kapapa's employee's NAPSA contributions

K270,000 x 5% = K13,500

(ii) CHIPAKA LTD
COMPUTATION OF COMPANY INCOME TAX PAYABLE FOR THE TAX YEAR 2022

Net profit		2,500,000
Less Allowable deductions:		
Directors emoluments		
Chipapa	280,000	
Kapapa	230,000	
		(510,000)
Motoring allowances for:		
Chipapa	40,000	
Kapapa	40,000	
		(80,000)
Employers' Napsa for:		
Chipapa(K293,232 x 5%)	14,662	
Kapapan(k270,000 x 5%)	13,500	
		(28,162)
Tax adjusted business profit		1,881,838
Company income Tax		
(K1,881,838 x 30%)		564,551

(c) (i) (1) If Chipapa and Kapapa drew the additional amounts as annual dividends, those amounts will be subjected to Withholding tax at a rate of 15% and it will be the final tax. The amounts og the WHT will be

15% x (K280,000 + K230,000) = K76,500

(2) No NAPSA will arise on amounts drawn as dividends of K280,000 and K230,000 as dividends are not earnings for NAPSA purposes.

(3) Income tax on the directors will be charged on the K40,000 drawn by each individual as motoring car running allowances as these constitutes emoluments. However, these amounts will fall within the exempt threshold of K54,000, so no tax will arise on each individual.

(4) Employee's NAPSA contributions will arise on the K40,000 drawn as these constitute earnings for NAPSA purposes. The amount of the contributions will be:

Chipapa (40,000 x 5%) K2,000

Kapapa (40,000 x 5%) K2,000

(ii) CHIPAKA LIMITED COMPUTATION OF INCOME TAX PAYABLE FOR THE CHARGE YEAR 2022

	K	K
Net Profit		2,500,000
Less Allowable deductions:		
Motoring allowances		
Chipapa	40,000	
Kapapa	40,000	
		(80,000)
Employer's NAPSA contributions		
Chipapa	2,000	
Kapapa	2,000	
		(4,000)
		2,416,000
Tax (K2,416,000 x 30%)		724,800

(d) COMPUTATION OF NET INCOME IF BUSINESS IS RUN AS a:

	(i)	(ii)	
	Partnership	Limited Company	
		Emoluments Drawn	Dividends drawn
	K	K	K
Profits before deductions	2,500,000	2,500,000	2,500,000
Income Tax Payable			
- Chipapa	(421,335)	(63,210	-
- Kapapa	(405,285)	(47,160)	-
WHT		-	(76,500)
Company income tax	0	(564,552)	(724,800)
Employer's NAPSA contributions	0	(28,162)	(4,000)
Employee's NAPSA contributions	0	(28,162)	(4,000)
Net income	1,673,380	1,768,754	1,690,700

(iii) It will be beneficial to ran the business as a limited company with the additional amounts drawn as emoluments as this option gives the highest net income of K1,768,754.

SOLUTION TWO

SWA ZAMBIA

(a)

COMPUTATION OF LOSS RELIEF

	2019	2020	2021
	K	K	K
Tax adjusted mining profits	nil	522,000	702,675
Loss relief (w1)	nil	(261,000)	(351,338)
Taxable profits	nil	261,000	351,337

Loss relief in 2020	
indexed loss b/f	
K1,075,000 X [1 + (16.5-15.0)/15.0)]	1,182,500
Amount of loss relief in the year ended	
31 December 2020	
Restricted to (50% x K522000)	(261,000)
Unrelieved loss c/f at 31st December 2020	921,500

Loss relief in 2021	
indexed loss b/f	
K921500 X [1 + (17.2-16.5)/16.5)]	960,594
Amount of loss relief in the year ended	
31st December 2020	
Restricted to (50% x K702675)	(351,338)
Unrelieved loss c/f at 31st December 2021	609,256

(b) COMPUTATION OF INCOME TAX ON PROFITS FOR THE YEAR ENDED 31st DECEMBER 2022

	K	K
Profit before tax		1,386,794
Add :		
Depreciation	514,000	
Loss on disposal	78,000	
Breach of environmental regulations	100,000	
Extension to school	288,900	
		980,900
		2,367,694
Less:		
Indexed capital allowance on mining equipment		
(K650,000 x 20%) = K130,000 x (1 + (17.7-17.2)/17.2)]	133,779	

Community development expenditure			
community school (20% x K288,900)	57,780		
Balancing charge on disposal of mining equipment			
(K180,000-K95,000)	(85,000)		
		(106,559)	
		2,261,135	
Add: Disallowed interest (W)		0	
		2,261,135	
Less loss relief (w)		(626,967)	(W)
Taxable mining profit		1,634,168	
Company income tax			
Tax on mining profits			
K1,634,168 x 30%		490,250	

Workings

Loss relief

Indexed mining loss b/f at 1st January 2022	
(K609,256 x [1 + (17.7-17.2)/17.2)]	626,967
Loss relief	
Loss relief	(626,967)
Unrelieved loss c/f as at 31st December 2021	Nil

The loss to be relieved is restricted to 50% of the taxable mining profits. I.e K2,261,135 x 50% = K1,130,568. The whole loss will therefore be relieved as it is below 50% of the taxable profits.

EBITDA	K	K
Taxable mining profits		2,261,135
Add:		
Finance costs		125,800
Depreciation		514,000
EBITDA		2,900,935
Interest expense		125,800
Allowable interest		
(K2,900,935 x 30%)		870,281
Disallowable interest		Nil

The finance cost K125,800 is less than 30% of EBITDA and therefore the whole amount of interest will be an allowable deduction from profits.

SOLUTION THREE

(a) Systems of international taxation

(1) **Territorial taxation system** – under this system, only income that arises from sources actually or deemed to be within the country is taxable for everyone. A territorial taxation system therefore, allows companies to exclude or deduct foreign profits that they receive

from foreign subsidiaries from domestic taxable income, thus exempting those profits then from domestic tax. The main drawback for this system is the ability to avoid taxation on portable income by moving it offshore. This has led governments to enact hybrid systems to recover lost revenue.

(2) Residency taxation system – in a residency taxation system, persons resident in the country are taxable on their worldwide income. On the other hand, non-residents are only taxable on certain income that arises from within the country. Residency taxation systems are based on the principle that people and firms should contribute towards the public services provided for them by the country where they live, on all their income wherever it comes from. Countries with a residence-based system of taxation usually allow deductions or credits for the tax that residents already pay to other countries on their foreign income.

(3) Exclusionary taxation system –this system specifically includes or excludes certain classes or items of income arising from within and outside the country. This system generally applies when dealing with income received from foreign subsidiary companies. In most jurisdictions, dividends received from certain foreign subsidiary companies are exempt from tax while income received by way of interest and royalties from foreign subsidiaries is taxable.

(4) Hybrid taxation systems – some governments have attempted to mitigate the limitations of each of these three systems by enacting a hybrid system with characteristics of two or more systems. For example, they may tax based on residency but provide a specific amount of exclusion for certain foreign income. Alternatively, they may tax income sourced in the country as well as that remitted to the country. Most countries tax gains on dispositions of realty within the country, regardless of residency or their system of taxation.

(b) Advice on tax treatment of the foreign income received

(1) **Foreign dividend** – this is chargeable to Zambian income tax. The chargeable amount is the gross amount.
(2) **Rent** – this is exempt from Zambian income tax.
(3) **Interest** – this is chargeable to Zambian income tax. The chargeable amount is the gross amount.

(c) Manyepa

PERSONAL INCOME TAX COMPUTATION FOR THE TAX YEAR 2022

	K	**K**
Emoluments from employment		
Salary (K90,000 X 8)		720,000
All-inclusive allowance (K720,000 X 50%)		360,000
		1,080,000
Foreign income		
Dividends (R$9,200 X 100/80 X K17.30)	198,950	
Interest (R$1,000 X 100/80 X K17.30)	21,625	
		220,575
Taxable income		1,300,575
Income tax		
K54,000 X 0%		0
K3,600 X 25%		900
K25,200 X 30%		7,560
K1,217,775 X 37.5%		456,666

	465,126	
Less Double Taxation Relief (DTR)		
Dividends (W1)	(39,790)	(W)
Interest (W2)	(4,325)	(W)
	421,011	
Less tax already paid		
Pay As you Earn (PAYE)	(183,000)	
Final income tax payable	238,011	

Workings

(1) Double Taxation Relief (DTR) on foreign dividends

Lower of:

- Foreign tax paid K198,950 X 20% = K39,790

(½ mark)

- Zambian tax charge on foreign dividends

Total assessable income

	K
Taxable income	1,300,575
Zambian dividends (K34,000 X 100/85)	40,000
Total	1.340,575

Total Zambia tax charge

	K
Income tax	465,126
WHT (K34,000 X 15/85)	6,000
Total	471,126

K198,950/K1,340,575 X 471,126 = K69,918

DTR is therefore the lower figure which is K39,790

(2) Double Taxation Relief (DTR) on foreign interest

Lower of:

- Foreign tax paid K21,625 X 20% = K4,325

- Zambian tax charge on foreign interest

K21,625/K1,340,575 X 471,126 = K7,600

DTR is therefore the lower figure which is K4,325

SOLUTION FOUR

(a) **Treatment of group losses**

There is no concept of group losses in the Republic of Zambia. Companies masking up a group are taxable individually as separate entities.

The Income Tax Act provides that losses incurred by a taxable person can only be deducted from income derived by that person from the same source.

Where a loss exceeds the income of a taxable person for the charge year in which the loss was incurred, then the excess can be carried forward and be relieved by that business, against income arising from the same source in the following five (5) years.

This means that a tax loss incurred by one company within a group cannot be surrendered to be set of against profits of another member of the group. An individual company within the group must utilise its own losses.

The loss can be carried forward for a maximum of five (5) years by the respective member of the group. If at the end of the fifth (5^{th}) year, there is still an outstanding loss, that outstanding loss cannot be relieved in any other way and is therefore lost.

Hence, the losses for Snake Ltd cannot be surrendered to be set of against profits of another member of the group.

(b) A group of companies means a holding company together with all its subsidiaries.

A 'holding company' means a company that:

(1) Holds the majority of the voting rights in another company; or
(2) Is a member of another company and controls the majority of the voting rights on its own or pursuant to an agreement entered into with the other members; or
(3) Is a member of another company and controls and has the right to appoint or remove a majority of the board of directors in that other company.

The definition excludes situations where companies are under the common control of an individual and also excludes any group members that are not resident in Zambia.

Where, within a group of companies, a company transfers property to another company (other than a company which is not resident in Zambia) within the same group for the purposes of internal reorganisation of the group, the Commissioner-General may treat such a transfer as having no realised value.

Hence, special rules on internal reorganisation can only apply to Lizard Plc and not the Saudi Arabian subsidiary.

(c) Calculation of the company income tax liabilities

	2020	2021	2022
Zebra Plc	K'000	K'000	K'000
Taxable income	4,000	6,000	10,000

Company income tax @30%	1,200	1,800	3,000

	2020	2021	2022
Snake Ltd	K'000	K'000	K'000
Taxable income	0	0	0
Lizard Plc			
Business profits	0	2,000	3,000
Loss relief	0	(500)	0
Taxable income	0	1,500	3,000
Company income tax @30%	0	450	900

SOLUTION FIVE

(a) SSG BANK PLC

COMPUTATION OF TAXABLE BUSINESS PROFITS FOR THE TAX YEAR 2022

	K'000	K'000
Income before taxes		21,050
Add		
Increase in general provisions	8,000	
Depreciation	1,300	
Impairment losses	900	
Unrealised foreign exchange losses	200	
		10,400
		31,450
Less:		
Dividend Income	6,900	
Profit on disposal of investments	6,000	
Royalties	2,000	
Capital allowances	1,090	
Unrealised foreign exchange gains	300	
		(16,290)
Adjusted profit		15,160
Add:		
Royalties		2,000
Taxable profits		17,160
Company income tax @ 30%		5,148
Less:		
WHT on Royalties (K2,000 x 15%)		(300)
WHT On interest income (K12,000 x 15%)		(1,800)
Provisional income tax		(6,300)
Income tax refundable		(3,252)

(b) Taxation Implications of convertibles bonds

From the company's point of view

(1) Interest on loans before conversion taken out to finance the business is allowable for as long as the interest expense is not more than 30% of the Earnings Before Interest, Tax, Depreciation and Amortisation (EBITDA).
(2) Incidental costs of obtaining the bonds is allowable when computing business profits.
(3) Dividends payable after conversion are not an allowable deduction from profits.

From the point of view of an individual investor

(1) Interest received will be subject to withholding tax which is a final tax.
(2) Dividends received after conversion will be net of withholding tax which is the final tax. Since SSG Plc is a LuSE listed entity, dividends will be exempted from tax.

(3) Property transfer tax will arise on transfer of the shares after conversion. Since SSG plc is a LuSE listed entity, there will be no property transfer tax.

Taxation Implications of Equity Finance

From the company's point of view

(1) Fees incurred in issuing share capital are not allowable for tax purposes.
(2) The cost of making distributions to shareholders is not allowable for tax purposes.
(3) Dividends paid are not allowable for tax purposes.

From the point of view of an individual investor

(1) The dividends receivable by the investor are subject to withholding tax which is a final tax. Since SSG Plc is a LuSE listed entity, dividends will be exempt from tax.
(2) Property transfer tax would arise on transfer of shares by the investor in a company that is not listed on the Lusaka Securities Exchange. This means that there would be no PTT on the transfer of the shares.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA 3.5: ADVANCED MANAGEMENT ACCOUNTING

TUESDAY 13 DECEMBER 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)

Premium Care Hospital (PCH) is located in a Southern African Development Conference (SADC) country and specialises in the provision of knee surgery (both minor and major surgeries) and hip replacement treatments. It is a Not- For- Profit-Organisation. PCH is known for providing high quality services for all its patients and this high quality service is derived from its vision and mission statements. The patients served by PCH include both private fee patients and government assisted patients. Government assisted or funded patients pay a lower fee because this category of patients includes unemployed people, senior citizens and those who earn very low salaries.

PCH competes with other hospitals in the knee surgery and hip replacement treatments industry. One other such hospital is Saint Mary's Hospital (SMH). SMH provides similar treatments to that of PCH but is not funded by the government. That is to say, it is wholly private and as expected its knee and hip replacement fees are relatively higher than that of PCH.

Statistics regarding PCH for the year ended 31 December, 2021 are as follows:

1 **Budgeted mix of knee and hip operations**

Knee surgery (25% of which are major surgeries): 60%
Hip replacements: 40%

2 **Budgeted fees payable by government and private patients**

Budgeted fees payable by each patient who received treatment from PCH are shown below. It should be noted that 40% of the fees are funded by the government on behalf of the patients as explained in the first paragraph above.

Type of Service(operations)	Fees payable by Government	Fees payable by private patients
Knee - minor surgery	K1,000	K1,600
Knee – major surgery	K2,200	K3,000
Hip replacement	K3,500	K4,500

3 **Budgeted costs**

Total budgeted costs for the year to 31 December 2021 for PCH based on 100% capacity utilisation were:

	Costs	Total (K'000)	Fixed Costs	Variable costs
	Surgical costs	40,000	80%	20%
4	Nursing costs	10,000	65%	35%
	Depreciation of equipment & operation accessories	2,500	100%	0%
	Administration costs	5,000	100%	0%
	Miscellaneous costs	6,000	50%	50%

Actual costs

Total actual costs for the year to 31 December 2021 for PCH were:

5

Costs	Total Costs K'000	Fixed Costs K'000	Variable costs K'000
Surgical costs	42,000	32,000	10,000
Nursing costs	10,500	6,500	4,000
Depreciation of equipment & operation accessories	2,500	2,500	0
Administration costs	5,800	5,800	0
Miscellaneous costs	6,300	3,500	2,800

Contracted loans, grants, etc.

PCH did not receive any loans, grants or donations during the year.

6 **Budgeted variable surgical costs**

These costs include a total amount of K1,250,000 relating to emergency operations undertaken.

7 **Actual variable surgical costs**

Variable actual surgical costs of emergency operations undertaken were K1,300,000.

8 **Emergency operations**

The proportion of emergency operations as a percentage of total operations was according to the budget.

9 **Additional actual data**

Other additional actual data relating to PCH are:

• **Capacity utilisation**	90%
• **Patient mix for each type of operation and treatment:** - Privately-funded patients - Government-funded patients	 30% 70%
• **Patient mix for knee operation and hip replacement:** - Knee surgery(40% of which are major surgeries) - Hip replacement	 55% 45%

10 **Additional data relating to the competitor hospital, St Mary's Hospital (SMH)**

		K'000	K'000
Fees received			45,000
Less: operating costs			
i)	Surgery	12,000	
ii)	Nursing	18,000	
iii)	Depreciation	4,000	
iv)	Loan interest	600	
v)	Management	5,000	
vi)	Sundry	1,000	
		Total costs	(40,600)
		Net profit	**4,400**

You should assume that SMH does not carry out emergency operations.

11 **Data relating to both hospitals**

Each hospital comprises twenty wards, each of which can accommodate six patients. The average patient stay in both hospitals was two (2) days. Each hospital is open for 365 days.

Required:

(a) Prepare a budgetary control statement which shows comparative analysis of the budget and actual results for PCH for the year ended 31 December, 2021.

Variances between the budget and actual results should be produced. You are further advised that the budgetary control statement should be in a columnar format showing revenues, variable costs, contributions and fixed costs on it. *(professional marks are available for producing this format*) (17 marks)

(b) Identify four (4) performance measures to assess the quality of surgical treatments provided by a hospital. Indicate how each measure can be assessed. (8 marks)

(c) In a monthly management meeting, the Finance Director of PCH, Bellington Kafwanayo commented that it was likely that in following year, the demand for knee surgeries and hip replacements will be more than 100%. He went on to say that since patient mix is a key determinant of profitability, the excess capacity should be utilised by taking more of private patients who bring in more money than government funded patients. He added that that was obvious to anybody and there were no ethical issues to consider regarding that decision.

Evaluate the ethical issues which may arise in PCH as a result of considering patient mix as a key determinant of profitability. (3 marks)

(d) Explain the appropriateness of making a direct comparison between the financial performance of PCH and SMH, giving four valid reasons. (6 marks)

(e) Prepare income statements using only the information contained in the question and make three (3) adjustments to the income statements you have prepared in your solution to part (a) that you consider would assist in the development of a more appropriate comparison of the financial performance of both hospitals. (6 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt any THREE (3) questions.

QUESTION TWO

The GAB group comprises two divisions, A and B. Division A manufactures an intermediate product, Product X, which it sells to external customers as well as internally to Division B. The GAB group policy is that divisions have the freedom to set transfer prices and choose their suppliers. Division A management performance is measured using controllable profit before tax as the performance measurement criterion.

Required:

(a) Prepare a draft statement showing the cost and revenue elements which should be included in the calculation of controllable divisional profit before tax. (2 marks)

(b) Discuss ways in which the degree of freedom given by the GAB group to Division A may affect the absolute value of controllable profit reported. (6 marks)

(c) Division B wishes to buy the intermediate product, X, from Division A at a transfer price of K30 per unit which is the same price charged to external customers. Total costs are estimated to be in the ratio of variable costs to fixed costs of 3:1.

Required:

Compute **and** discuss the transfer price(s) at which Division A should offer the intermediate product X to Division B so as to maximise group profits giving reasons for the transfer prices chosen in each of the following scenarios.

Scenario (i)

Division A has an external market for the whole output of product X at a selling price of K30 per unit. Units transferred internally results in K3 of variable costs being saved. (3 marks)

Scenario (ii)

The same conditions as in (c) (i) above apply. However, assume that there is no external market demand for 6,000 units of production. (4 marks)

Scenario (iii)

The same conditions in (c) (i) and (c) (ii) apply here. However, Division A has alternative use for some of its spare capacity. This alternative use is equivalent to 4,000 units of product X and would earn a contribution of K12,000. (5 marks)

N.B: In all the three scenarios, you should discuss how you have arrived at such a transfer price(s) and why you are recommending the transfer or transfer prices you have calculated. Your decision should be made purely on financial grounds in each of the three scenarios above. I.e. ignore non-financial factors.

[Total: 20 Marks]

QUESTION THREE

The role of the Management Accountant in today's business environment has changed significantly. Several business scholars, notably, Johnsons and Kaplan, Colin Drury et al, Burns et al, and Baxten and Chua, have written extensively on this subject.

Accounting has traditionally been viewed under two segments of Financial Accounting and Managerial Accounting separately. Financial accounting is mainly concerned with the accuracy and compliance of the financial records for the external users of the business reports. Management accounting on the other hand provides information on financial and management practices to the business managers.

In practice, Management Accounting is the identification, analysis, and provision of financial information to the business managers to achieve the business objective of the organizations. Management accounting practices have evolved a lot in decades, the criticism remains on the use of financial accounting, and the practical performance of the Management Accountants. Management accounting practices in theory and in practice had seen an increased gap.

The debate over the changing nature of Management Accounting has been supported by a wide array of research, whose findings are not uniform and sometimes contradictory. When surveying the literature of the 1990's it is not surprising to find several contributions addressing the issues of managing change by describing the successful implementation of new management accounting techniques, such as activity based cost management, strategic Management Accounting, target costing, throughput accounting and balanced scored card, to name only a few.

In the UK, questionnaire surveys and case studies have been used to confirm or challenge Johnson and Kaplan's findings. Among the others, Scapens et al commented on the pre-eminence of external financial reporting over management accounting.

The argument put forward is that management accounting practices are definitely changing. However, rather than new management accounting systems or techniques , change often entails the manner in which traditional and/or new technologies are actually being used.

Burns and Scapens, in their article *"The Changing Nature of Management Accounting and the Emergence of 'Hybrid Accountants',* emphasise that Management Accounting has shifted its focus from '"financial control' to the aspects of 'supporting business'.

Required:

(a) Explain what you understand by 'hybrid accountants' and their changing role as modern management accountants in today's business environment. (4 marks)

There are four (4) main forces of change in the role of the management accountant. These are technology, management structure, and competition and business collaborations/customer relationships.

(b) Discuss the four (4) main forces of change in the role of the management accountant. (16 marks)

[Total: 20 Marks]

QUESTION FOUR

Amazulu Autoworld Ltd (AA Ltd) is a supplier of gears to truck manufacturers and supplies gears throughout the year. The demand from customers has been increasing over the years. However, the company is facing intermittent quality issues.

Due to those issues, the company has taken up quality assurance initiatives. The initiatives cover reassessment of the adequacy of production processes, operator skills, methods, machines, tools, quality management techniques and quality management documentation. The documentation specifies the reasons for rejection of gears during inspection at the customer end and the related quality costs are also documented.

The Chief Executive Officer (CEO) of AA Ltd, Linda Salifyanji, attended a seminar where the presenter explained the relationship between costs and quality. An extract from his presentation is as follows:

> "*Cost is clearly important, as the consumer will want to know if an identical product can be obtained elsewhere at a cheaper price. If a company can produce a product at a lower cost than its competitors, it should be able to gain a larger market share. Costs can be reduced by reducing costs of inputs, both materials and labour, and reducing overheads. Similarly, quality has become so important that all companies now have to consider seriously how they can improve quality throughout their operation. One technique which can be used to improve quality is Total Quality Management. A consumer wants to know how reliable an item is, how long it will last and in addition requires a functional and not unattractive product. No one wants a bulky old fashioned looking computer on their desk giving an impression the user is also miles behind times. Higher quality products attract more consumers. To achieve a quality product, a company needs to obtain quality inputs, and to process the product with quality in mind at each stage of the process. Otherwise, gabbage in, gabbage out. Reducing the number of faulty parts will not only improve quality but also reduce the cost by cutting waste and the reprocessing of faulty items*"

The CEO of AA Ltd wants to follow up further on the cost-quality relationship.

Required:

Prepare a report which discusses how management accounting/modern management techniques provided below can contribute in the analysis of the relationship between costs and quality.

(a) Balanced Scorecard;
(b) Activity Based Costing;
(c) Value Analysis;
(d) Just-In-Time; and
(e) Total Quality Management

[Total: 20 Marks]

QUESTION FIVE

Mabanda Ltd (M Ltd) is a company operating in the energy sector. It has had challenges with smooth reporting systems. The challenges included inefficient workflows for ensuring the effectiveness of process safety barriers such as safety instrumented systems, safety alarms, basic process control system interlocks and fire and gas detection.

These workflows used a mix of systems, hard copy data collection and manual collation which created multiple sources of information for performance standards, an inadequate system of record for the "as found/as left" data and hindered analysis capabilities.

Therefore any analysis were inconsistent and led to substantial non-value work. In addition, safety audits identified defects in the recording and analysis of data.

Challenges associated with the solution included:

- Ability for the application to run on an intrinsically safe tablet while disconnected from the internet.
- Provide region-specific customization to support local regulatory requirements.
- Need to synchronise before and after site visits to ensure accuracy and completeness of the work.

M Ltd engaged Dashboard and Drill IT Solutions (DDITS) who worked closely with the company to define the requirements and performance needs and used an agile methodology to ensure that the most valuable functionality was delivered earlier and more frequently.

The key deliverables sought from DDIT were to:

- Improve process safety risk management
- Provide a single source of information for device performance standards
- Facilitate efficient access to maintenance and engineering data which allows increased visibility of equipment performance through deeper data analysis
- Remove inefficient/paper-based processes and improved maintenance resource allocation

If successfully implemented, M Ltd will be able to deploy the reports for use on schedule and on budget, i.e. cost effective. Such reports will be concise and providing a 'birds eye' view.

Required:

Accounting information needs to be distributed in a manner that makes it clear, concise and does not overload the user. Management accounting is involved in the conversion of data into useful information that management can use for different purposes. It is now becoming fashionable for companies to reduce the number of paper reports, thereby providing reports to decision makers in an easy –to- read manner.

(a) Discuss the following terms below and how M Ltd will use them in its reporting requirements.

(i) Executive Dashboards (3½ marks)

(ii) Drill Down Reports (3½ marks)

(iii) Exception Reports(advantages and disadvantages of managing by exception should also be discussed) (5 marks)

(b) In situations where an organisation like M Ltd is introducing a computerised management information system, the natural human tendency to resist can result in dysfunctional behaviour.

Required:

(a) (i) Discuss ways in which such dysfunctional behaviour can manifest itself. (4 marks)

(b) (i) Explain how M Ltd can overcome such behaviour, i.e. resistance. (4 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

Budgetary Control Statement for Premium Care Hospital for the Year Ended 31 December, 2021

(a)

Workings:

		Budget (K'000)	Actual (K'000)	Variance (K'000)
W.1	**Revenue**			
	Government Funded Patients(W.3)			
	• Knee : major surgery	2,600.40	6,677.75	4076.60
	• Knee : minor surgery	3,547.00	4,553.01	1,006.00
	• Hip replacement	11,035.50	21,731.50	10,692.00
	Private Patients(W.4)			
	• Knee : major surgery	5,321.70	3,902.58	(1,419.12)
	• Knee : minor surgery	8,514.72	3,122.06	(5,392.66)
	• Hip replacement	21,286.80	11,973.82	(9,312.98)
	Total revenue	**52,306.12**	**51,959.96**	**(346.16)**
	Less: **Variable costs**			
	-Surgical costs (40x0.2x90%)	7,200	10,000	(2,800)
	-Nursing costs (10x0.35x90%)	3,150	4,000	(850)
	-Miscellaneous costs (6x0.5x90%)	2,700	2,800	(100)
	Total variable costs	**13,050**	**16,800**	**(3,750)**
	Contribution	**39,256.12**	**35,159.96**	**(4,096.16)**
	Less: Fixed Costs			
	-Surgical costs(40x0.8)	32,000	32,000	0
	-Nursing costs(10x0.65)	6,500	6,500	0
	-Miscellaneous costs(6x0.5)	3,000	3,000	(500)
	-Depreciation of equipment & operation accessories	2,500	2,500	0
	-Administration costs	5,000	5,800	(800)
	Total Fixed Costs	**49,000**	**50,300**	**(1,300)**
	Net profit/(loss)	**(9,743.88)**	**(15,140.04)**	**(5,396.16)**

Total maximum possible number of patients per year if operating at 100% capacity.

$$\frac{\text{20 wards x 6 patients x 365 days}}{\text{2 days average stay}} = \underline{\text{21,900 patients}}$$

Total patients in the year at 90% capacity: 21,900 x 90% = 19,710 patients

Detailed budgeted and actual workings for government funded patients

- **The budget estimates are flexed on the basis of actual capacity.**

W.2 Patient mix

	Budget		**Actual**
Government	40% x 19,710 = 7,884		70% x 19,710 = 13,797
Private	60% x 19,710 = 11,826		30% x 19,710 = 5,913

W.3 Government knee and hip operational mix

	Budget		**Actual**
Knee	60% x 7,884 = 4,730.4		55% x 13,797 = 7,588
Hip	40% x 7,884 = 3,153.6		45% x 13,797 = 6,209

W.4

Budgeted and Actual Revenues: Government funded

Knee(Major surgery): 25% x 4,730.40 = 1,182.60 x K2,200	= K2,600,400
Knee(Minor surgery): 75% x 4,730.40 = 3,547 x K1,000	= K3,547,000
Hip replacement : 3,153.60 x K3,500	= K11,035,500

Knee(Major surgery): 40% x 7,588 = 3,035 x K2,200	= K6,677,000
Knee(Minor surgery): 60% x 7,588 = 4,553 x K1,000	= K4,553,000
Hip replacement : 6,209 x K3,500	= K21,731,500

Abbreviated budgeted and actual revenue workings for private patients

(N.B. detailed workings are also possible here)

W.5 Budgeted and Actual Revenues: Private patients

Budget

Knee(Major surgery): 11,826 x 60%x25% x K3,000	= K5,321,700
Knee(Minor surgery): 11,826 x 60%x75% x K1,600	= K8,514,720
Hip replacement : 11,826 x 40%x K4,500	= K21,286,800

Knee(Major surgery): 5,913 x 55%x40% x K3,000	= K3,902,580

Knee(Minor surgery): 5,913 x 55%x60% x K1,600	= K3,122,064
Hip replacement : 5,913 x 45%x K4,500	= K11,973,825

Actual

(b) Performance measures that could be used to assess the quality of service provided by the management of a hospital include:

Performance Measure	**How assessed**
1. Tidiness and hygiene standards of a hospital	By observation
2. Waiting time for non-emergency operations	Time elapsed from date of booking operation until it was performed
3. Responsiveness to patient requests	Patient questionnaire/survey
4. Number of successive operations	Successful operations/total operations x 100%
5. Staff to patient ratio(number of doctors & nurses to number of patients	By consulting staff and patient records

(c) It is stated that private patients pay more than government funded patients. It follows that this government/private patient mix is a key determinant of profitability. Therefore, if ethical issues are ignored and demand for treatment increase from 90% to 100% or more, the hospital should give priority to private patients as PCH receives more fees from this category of patients for each type of treatment and surgery.

However, the following ethical issues must also be taken into account when deciding on the correct mix of patients:

(i) PCH is a partially government funded hospital. Thus government funded patients also require treatment and should not be discriminated against.

(ii) PCH is Not-For –Profit Organisation. Its vision and mission statement requires it to provide high quality health care to all the patients. Thus, it will be going against the mission statement if private patients are given priority.

(d) It is not appropriate to make a direct comparison between the financial performance of PCH and SMH because:

i) PCH is partially government funded whereas SMH is privately owned
ii) PCH does not pay any interest on its loans whereas SMH does.
iii) PCH performs emergency surgeries whereas SMH does not
iv) Differing objectives: PCH is not profit making; SMH is profit making
v) The hospitals have differing fee structures. PCH receives a lower fee for government funded patients whereas SMH receives high fees.
vi) The hospitals have differing cost structures. E.g. for SMH its depreciation figure is more than 60% higher than PCH's.
vii) It is also likely that their financing structures are different.

(e) THREE adjustments to the income statements

	PCH	PCH	SMH
	Budget	Actual	Actual
	K'000	K'000	K'000
Net Profit/(Loss) (as in part (a))	**(9,743.88)**	**(15,140.04)**	**4,400**
Adjustments:			
– Add back: Loan interest not incurred by PCH	–	–	600
– Add back: Emergency operation costs not incurred by SMH	1,250	1,300	
– Add back: Shortfall in income due to government subsidy**(W.6)**	6,226.80	11,368.80	
Adjusted operating net profit/(loss	**(2,267.08)**	**(2,471.24)**	**5,000**

W.6 Shortfall in income due to government subsidy

Gross up the fees to be in line with private fees

Budget(K'000)

	Original revenue	Grossing up factor	Grossed up revenue
Knee(major):	K2,600.40	x3,000/2,200	= K3,546.00
Knee(minor):	K3,547	X1,600/1,000	= K5,675.20
Hip replacement	K11,035.50	X 4,500/3,500	= K14,188.50
Total	**K17,182.90**		**K23,409.70**

Shortfall = K23,409.70 – K17,182.90 = <u>K6,226.80</u>

Actual(K'000)

	Original revenue	Grossing up factor	Grossed up revenue*
Knee(major):	K6,677.00	x3,000/2,200	= K9,105.00
Knee(minor):	K4,553.00	X1,600/1,000	= K7,284.80
Hip replacement	K21,731.50	X 4,500/3,500	= K27,940.50
Total	**K32,961.50**		**K44,330.30**

Shortfall = **K44,330.30** – **K32,961.50**= <u>K11,368.80</u>

<u>*alternative working for grossed up revenue:</u>

- Knee major surgeries: 3,035.34 patients x K3,000 = K9,106.12
- Knee minor surgeries: 4,553.01 patients x K1,600 = K7,284.82
- Hip replacement: 6,208.65 patients x K1,600 = K7,284.82

SOLUTION TWO

(a) A summary of the calculation of controllable divisional profit may be shown as:

Sales to outside customers	XXX
Interdivisional sales	XXX
Total sales revenue	XXX
Less: Variable cost of goods sold	(XXX)
Variable divisional expenses	(XXX)
Controllable contribution	**XXX**
Less: Controllable divisional fixed overhead	(XXX)
Controllable profit before tax	**XXX**

(b) The degree of autonomy allowed to a division will affect the extent to which divisional management can control various aspects of income and expenditure. The ratio of interdivisional sales to external sales may be determined to a greater extent by divisional management where an increased level of autonomy is allowed. Where internal sales are transferred at prices lower than market price, a change in the mix of sales to an increased proportion of interdivisional sales will reduce the controllable divisional profit reported. The degree of autonomy will also affect the transfer pricing policy of Divison A. Where a fully centrally directed policy is used, the transfer price may be as low as marginal cost where Divison A has spare capacity. The will reduce the reported profit at the division transferring the goods. On the other hand where complete autonomy is given, Divison A may transfer at market price, thus increasing its reported profit.

The variable cost of goods sold will also be affected by the degree of internal transfers of components from other group divisions and the price paid for these.

An increased level of autonomy will allow the management at Division A to seek cheaper external sources of components where internal prices are high, thus improving the controllable profit reported.

The level of variable divisional expenses may vary because of the level of interdivisional sales on which sales and distribution costs may incurred at a lower level than that of external business. Hence the more autonomy that Division A management has to decide on its own mix of sales, the greater the scope for change in the rate of variable divisional expenses.

The ability to adjust the level of divisional fixed expenses may also be linked to the degree of autonomy allowed to divisional management. For example, Division A management may decide that, despite suggestions from head office, it does not need extra services from the group personnel office. In this way divisional costs will be kept down but another division may have to absorb the personnel department cost.

If Division A manager is given autonomy, he/she is able, to a certain extent, to influence the figure on which his/her performance is measured (controllable profit before tax). His/her actions may improve his/her score measured on this basis but not necessarily improve the overall performance of the GAB group.

(c) The general rule in transfer pricing to ensure that group profit-maximising decisions are made is to set the transfer price at standard variable cost + opportunity cost of making the transfer.

Scenario (i)

Because Division A can sell all of its production of product X on the external market, the opportunity cost to the group of making a transfer to Division B is the revenue of K30 per unit, i.e. the external selling price. This can be adjusted to take account of the K3 per unit of variable cost saved by transferring internally. Therefore, the optimal transfer price is = K27 per unit K(30 – 3).

Scenario (ii)

If Division A has spare production capacity for 6,000 units of product X for which no external market is available, the opportunity cost to the GAB group of transferring these 6,000 units of product X to Division B is zero (K0).

The transfer price of the 6,000 units is, therefore, the standard variable cost per unit of K18 (W.1), adjusted by the savings in internal transfers. The optimal TP is
K (18 – 3) = K15.
The remaining units of product X required by Division B should be transferred at K27 per unit, as in (i) above.

Scenario (iii)

For the 2,000 units of spare capacity with no alternative use, the transfer price for this would be the adjusted standard variable cost of K15.00 per unit as in (ii) above.

The 4,000 units (out of 6,000 units) of spare capacity with alternative use. For this quantity, the transfer price would have to reflect the opportunity cost foregone (i.e. K12, 000/4,000 units = K3 per unit) plus the standard variable cost adjusted by the savings (K15), giving a final transfer price of K (3 + 15) = K18 per unit.

Balance of requirements. This should be offered at the opportunity cost of K27.00 per unit as in (i) above.

Workings

W.1 Total cost analysis

Total cost +Profit = Selling price

Total cost + 25% profit mark-up =K30

Total cost + 25% of total cost = K30

Total cost = K30/125% = K24

Total cost = 75% variable, 25% fixed

Variable cost per unit = 75% x K24= K18.

Fixed cost per unit = 25% x K24 = K6.

SOLUTION THREE

(a) Hybrid accountants are finance professionals with top notch accounting knowledge and in depth commercial and operational awareness backed by the power of Information Technology. Hybrid accountants are increasingly getting involved into more and more operations of an organization.

The current role of management accounting is defined and the change agents have come a long way from that of merely reciprocating their counterparts of financial accountants. Their roles have evolved from the record-keepers to that of **business managers**.

Growing numbers of management accountants can spend the majority of their time as internal consultants, business analysts, operational and strategic decision makers. They now spend less time preparing standardised reports, but more time analysing and interpreting information. Furthermore, many no longer work in an 'accounting department' but are based in the operating departments with which they work, meaning they are increasingly involved with the operations of their business, and more actively involved in decision making.

It follows that hybrids are physically located in the process streams, where they work alongside process managers. They have offices next to the process leaders, where they work for say, three days in a week. They then spend a day or two in their accounting department.

The role of the management accounting function has changed with the impact of new technology (especially Enterprise Resource Planning systems) and organizational change. The latter has seen new variants of the divisionalized corporation with shared service centres as well as the outsourcing of a range of business support services.

Business environments change rapidly with the innovation of IT and changes to the management information systems. The key to success for management accountants is the fast adaption to these changes. The role of management accountants needs to build around the business support managers rather than the traditional role of costing and accounting.

(b) Management accountants have become more business support managers than financial accountants. The change in management accounting has been driven by four main forces.

1. Technology and Management Accounting

The world has transformed with the advent of IT innovation, management accounting has adapted to the trends, too. Business managers like management accountants had an access to business tools such as information systems. In other words, the traditional management accountant was one of the few people who had access to the IT system. But now sophisticated IT systems (Management Information Systems) enable users across the organisation to input data and produce reports which were once only produced by the traditional management accountant. The hybrid accountant is now another user of the system, interrogating the MIS to produce reports based on the data often input by other departments. So as the information system evolved to tech-based MIS, management accountants became proactive decision makers.

The amount and speed of the data turned into information has remarkably reduced the decision making process. The management accounting's edge over financial accounting proved to be the concern with data security and adaption to changes.

In fact, management accountants claim to be change managers embedding technology based solutions to the business processes through management accounting techniques.

Business environments change rapidly with the innovation of IT and changes to the management information systems. The key to success for management accountants is the fast adaption to these changes. The role of management accountants needs to build around the business support managers rather than the traditional role of costing and accounting.

2. Management Structures

Management structures have changed over time. Organizations are adapting to more decentralized power and resource allocations to harness the flexibility and responsibility of the regional centres. The autonomy of power and resource allocation gave birth to "resource centres" of the organizations. So delayering of the management structures and the empowering of employees have become the norm.

Changes in management structure have forced change on the accountant. For example, responsibility for budgeting has often moved from the head office to operational management. The increased autonomy of Strategic Business Units (SBU's) in recent times, has driven the SBU managers to take more of the decisions that would have been reserved for the head office management accountant. These managers are using financial and non-financial indicators and are producing forecasts. The management accountant is capable of providing reports alongside the SBU reports, often trying to provide a link between the operational reports, the financial consequences and the strategic outcomes desired by the board.

The competitive nature of the businesses and time constraint demand more flexibility and decision making powers to the decentralized centres. Management accountants in these centres now provide business decisions inputs through both financial and management accounting tools.

3. The Competition Forces/Globalisation

The competitive environment also drives change in the role of the management accountant. Over the last 20 years, there has been a move in organisations to a more strategic focus with the need for competitive advantage being emphasised. As a result, the traditional accountant's focus on the final profit figure has been seen as short term and this has led organisations to focus on a range of performance measures such as variance analysis, ratio analysis , financial and non-financial key performance indicators to try to capture the longer-term trends in their performance. Companies these days face global competition from expanding large brands that will try to enter and dominate its markets using their scale to competitive advantage. Therefore, companies will have to be flexible and innovative in response.

Increased competitive business environments require more flexibility in the roles of management accountants. Businesses require more innovative and dynamic responses to their competitors. Financial accountants traditionally focus on profit maximization, interpreting the financial records and stressing on the accuracy of financial statements. However, the competitive nature of modern businesses demands more diversity in the role of management accountant for long-term decision making. Competition has forced the hybrid accountant to shift focus to a more commercial and strategic analyst.

There has been a shift from focusing on the short term profit to a commercial orientation that recognises that the future earning capacity of the business is more important. Thus, the focus is more on the maximising of revenue from the market and new product development.

4. Business Collaborations/customer relationships

Another recent trend which has also affected the role accountants has been the creation of networks, collaborations and relationships. This implies that accounting has had to adapt to new organisational forms involving information sharing, co-operation and flexibility.

Some organisations collaborate in research and development; others are linking up with suppliers in supply chain management and integrating elements of their information systems to support these links.

Furthermore, companies are now increasingly establishing more formal links with customers and suppliers (e.g. in TQM/JIT, only certified suppliers appear on the supplier list), due to the increased importance of customer relationship management. Consequently, companies may modify product designs to customer specific requirements, agree to flexible delivery methods and times, and processes in order to focus on key customers. These developments have changed the role of management accountants.

Another area of change has been in outsourcing and partnering. Thus, necessary but non-value adding activities and processes have been candidates for contracting out or outsourcing. The implication for the hybrid accountants is that they now have to provide information (such as on targets, on time delivery, on quality, etc) on how well outsource partners are performing.

SOLUTION FOUR

To: The Chief Executive Officer

From: Management Accountant

Date: xx/xx/2022

Reference: MA/xx/2022/LS

1 Introduction

Further to your request, I set down below the management accounting techniques which may contribute towards the analysis of the relationship between costs and quality

2 Modern Management Accounting techniques.

2.1 Balanced Scorecard

The balanced scorecard (BSC) provides a framework for a business to achieve its strategic objectives by including both financial and non-financial objectives. The BSC comprises four performance dimensions, namely, financial (how do we look to our shareholders?), internal business process (what must we excel at? Including the monitoring of product unit costs), innovation and learning (improving and creating value, i.e, how products should be changed and improved), and customer (how do customers see us) dimensions or perspectives.

The BSC monitors and measures the critical variables that comprise the customer and internal perspective. The choice of variables for inclusion in the scorecard is significant because the scorecard report is a design for action. AA Ltd needs to monitor what factors truck manufacturers regard as contributing to improved quality and not what it thinks it should provide. Therefore the scorecard would be suitable for inclusion as quantifiable indicators on the costs versus quality graph. The BSC endeavours to improve the range and relationship between alternative performance measures, which in this case, are the costs (competitive product costs for gears) and quality performance measures.

2.2 Activity Based Costing

Activity Based Costing (ABC) is concerned with attributing costs to cost units on the basis of the service received from activities such as canteen, human resources, internal audit, quality control, etc. AA Ltd needs to identify activities that drive costs. In other words activities that cause costs to be incurred and these might include number of orders taken for manufacturing batches of gears, total number of machine hours spent on manufacturing gears, number of material handlings for gears, number of inspections for raw materials used to manufacture gears, etc.

ABC aims at avoiding the subjective allocation of indirect costs to products or services by identifying a causal link between costs, activities and outputs. Manufacturing of gears in AA Ltd is likely to be highly automated and therefore a significant amount of overheads is fixed and a better and more accurate method of allocating overheads is required. Product managers need to know what they are getting for their money: what is the real cost of quality? What are the costs driving activities that do not impact on quality? What activities that generate minimal costs have the largest positive influence on quality.

2.3 Value Analysis

Value Analysis (VA) examines business activities and questions why the business activities are being carried out and what contribution they make to customer satisfaction. In other words, it focuses on activities that add value to the product or service in the eyes of the customer. Value adding activities include designing of gears, producing gears and developing customer relationship with manufacturers of trucks.

Non-value adding activities (NVAC) include returning gears, inventory holding, checking quality of supplies received. As much as possible NVAC's should be reduced if they cannot be eliminated. By so doing, costs will be reduced and quality will be enhanced.

VA begins with concentration on customers. What do they want? What do they regard as significant in the purchase decision - is it the function of the product or product appearance, long life, etc. This is concerned with identifying what customers regard as quality. Once that is done, the product can then be produced. One should not spend efforts on what customers/truck manufacturers do not want or on what they regard as unimportant. It is a question of identifying what the constituents of quality are on the costs and quality trade off on the cost/quality graph or diagram.

2.4 Just-In-Time

Just-In- Time (JIT) is a manufacturing and supply chain philosophy that is intended to reduce inventory levels and improve customer service by ensuring that customers (truck manufacturers) receive their orders at the right time and in the right quantities. The system must facilitate a smooth workflow throughout the business and reduce on waste. Goods are produced to meet customer needs.

Cost reductions are arise from:

- Lower raw materials and finished goods inventory levels, thereby reducing holding costs
- Reduced material handling
- Reduction in the number of suppliers, lower administration and communication costs
- Guaranteed quality from certified suppliers leading to reduced inspection and re-work costs.

Quality improvements should arise from:

- Fewer certified suppliers guaranteeing quality
- Direct focus on meeting customer needs
- The need to work regularly and closer with the suppliers cements the relationship with them. The deliveries become high priority and more reliable.
- The absence of customer inventory holding compels the supplier to guarantee the quality of the material that they deliver.

2.5 Total Quality Management

Total Quality Management (TQM) is an approach that seeks to ensure that all aspects of providing goods and services are delivered at the highest possible standard, and that there is continuous improvement. The TQM principle is that the cost of correcting mistakes is higher than the cost of preventing the mistakes.

Quality related costs are incurred to achieve both quality and failure to achieve quality.

Quality costs can be classified as follows:

- Conformance costs(costs incurred in order to conform to quality) and non-conformance costs (costs incurred because of not conforming to quality)

Conformance costs can be further analysed as:

- Appraisal costs: inspection costs, testing costs.
- Prevention costs: training costs, good initial design

Non-Conformance costs can be further analysed as:

- Internal failure costs: re-work costs on the gears, scraped units
- External failure costs : loss of customers(truckers), law suits, customer complaints

The TQM concept is that by getting it right first time, the conformance costs will be less than the costs of non- conformance, i.e. there will a net positive saving and improved quality will be the result.

Should you require further clarification, please do not hesitate to contact me.

SOLUTION FIVE

(a) (i) Executive Dashboards

Historically, much of the criticism of information systems and reports has concentrated on the difficulties users have faced when trying to produce the reports they wanted from systems available. Reporting tools tended to be rigid and imposed many requirements about the way reports were produced.

Executive dashboards focus on a specific portfolio including cost performance, budget breakdown, schedule milestones, and project cost. In other words, a dashboard usually focuses on a theme to be explored over time, represented by indicators that are updated in real time and visualisations that show the evolution of the data over time. Reports, on the other hand, are used to monitor projects or themes of a specific duration. Furthermore, a dashboard answers a question in a single view and a report provides information. Put in another way, the report can provide a more detailed view of the information that is presented on a dashboard.

In the case of M Ltd an executive dashboard would show current data, pictures, graphs and tables to illustrate how the business is performing and help managers make better decisions. The dashboard brings to life the vision that senior management of M Ltd had of managers and employees having real-time access to measurements of the key factors the company wants to focus on such as region-specific customization to support local regulatory requirements and synchronisation before and after site visits to ensure accuracy and completeness of the work. M Ltd management can also now quickly see facilities that are excelling or falling behind on key factors in health and process safety barriers, financial performance, or production performance. And finally, employees can go to the dashboard for real-time feedback on those factors affecting their personal issues such as performance bonuses.

Some limitations of dashboards include:

- Lack of real-time anomaly detection prevents proactive incident management.
- Over-reliance on historical data.
- Missing small incidents that have a negative impact.
- Cluttered dashboards and false positives.
- Lack of intelligent prioritization.

(ii) Drill Down Reporting

Data drill down reporting makes reporting powerful and useful.

Drill down analysis is an extremely powerful feature in business intelligence. It gives the user the ability to see data and information in more detail.

Drill down is a capability that takes the user from a more general view of the data to a more specific one at the click of a mouse. An example in M Ltd's case is energy sales. A drill down report that would show sales revenue by province whereby a user would be allowed to select a province, click on it and see sales revenue by district or city within that province. It is called "drill down" because it is a feature that allows the user to go deeper into more specific layers of the data or information being analyzed.

Further levels of drill down can be set up within the report–practically as many as supported by the data. In this example, the drill-down can go from country to province to district to township to specific location of stores or individual sales representatives.

The benefits of drill down reports include:

- Gaining instant knowledge of different depths of the data – A drill down report gives the user a deeper insight of the data by letting him see what makes up the figures he or she is analysing. For example, in mere seconds, data drill-down answers questions such as: of my national sales figure, which provinces are performing better? Which provinces are underperforming? And within each province, which territories are driving revenue?
- Keep reporting load light and enhance reporting performance – By only presenting one layer of data at a time, reporting tools like drill down lighten the load on the server at query time and greatly enhance reporting performance–while offering great value to the end-user.

Some limitations of drill down reports include:

- By default, drilling won't filter other visuals in a report. However, the report designer can change this default behavior
- Viewing a report that has been shared with you requires a software licence such as Power BI and this comes at a cost.

(iii) Exception Reporting

Exception reporting is one other way of presenting performance information and it is a way of managing information that is being presented. In this way information overload is avoided. These exception reports are only triggered when a situation is unusual or requires management's attention.

An exception report identifies transactions or performance metrics where actual outcomes deviate significantly from expectations, and flags those outliers for follow-up and resolution. It is a document that states those instances in which actual performance deviated significantly from expectations, usually in a negative direction. The intent of the report is to focus management attention on just those areas requiring immediate action.

For example, an exception report could point out those instances in which expenses were higher than the budget, or where production levels were lower than the production plan.

In M Ltd, exception reporting may be also be practised in a project to install process control barriers and fire alarms. An exception report is normally an issue report that documents an issue that is out of tolerance. A Project Manager in M Ltd would issue a report when a stage plan or project plan is forecast to exceed tolerance levels set and given to the Project Board. It will offer options and recommendations for the way to proceed so the Project Board can decide. So, it is best to see the Exception Report as an Issue Report that describes a BIG issue.

Management by Exception is used by each level in the Project Organization to manage the level below. The layer below should only notify the above management layer if there is a big issue that is outside their tolerance.

If everything is going OK, the Project Board of M Ltd won't hear from the Project Manager other than for the regular reports during a stage and at the end of the stage, *unless* there is an *exception*, hence the term Management by Exception. When an exception occurs, the Project Managers sends an Exception Report to the Project Board.

It follows, therefore, that Management by Exception provides the above management layer with a system to manage and control the lower management layer, and they don't need to be bothered by each small issue.

Some of the advantages and disadvantages of exception reporting are:

- Time-saving

The first and foremost advantage of management by exception is that it helps the top management in saving a lot of time because since management has to look into major deviations only and not all minor deviations, they can utilize that time for some other productive activities which in turn will help the company in the achievement of desired objectives.

- Better Control

It helps in better control because all departmental managers in the back of their mind know about their targets and actual results, and they also know that the moment actual results deviate too much from accepted results management will take action against them. Besides top management too can focus more on major deviations rather than worrying about minor deviations which in turn ensures better control over organization as a whole.

- Tool for Action

Management by exception is a good tool for taking action against those who do not achieve the targets or deviates too much from their targets because in this strategy management view only consider major deviations as serious and on the basis of those major deviations they can take action against incompetent people working in various departments of the company.

Some of the disadvantages of Management by Exception reporting are:

- Considers only Major Deviations

The biggest drawback of management by exception is that it considers only major deviations and ignores minor deviations which in future can haunt the company. In a way, this system, by ignoring minor deviations allows them to become big deviations and hence trouble the company in the future.

- Dependent on Planning

Another problem with this strategy is that the success of this strategy is highly dependent on planning because if management in the planning stage set stiff or too low targets then this system will be of no use.

- Ignores other Factors

It ignores other factors and takes action only on the basis of deviations which sometimes can be wrong.

(b) (i) Dysfunctional behaviour is behaviour which produces organisational inefficiency. With an obvious target such as a computerisation of reporting modules, such behaviour is quite common and manifests itself in numerous ways including, projection, avoidance and aggression.

- Projection: means that people blame the new system for all problems even where such problems previously existed and are unconnected with the new system.
- Avoidance: means that people especially in managerial positions ignore the new system and persist with older, less efficient systems.
- Aggression: this can take many forms including miscoding, delaying tactics, even physical damage to the equipment.

(ii) Dysfunctional behaviour tends to occur with change that is not sympathetically managed. Ways of minimising adverse reaction include:

- Full and genuine participation in the design of new systems such as the introduction of dashboard and drill down reporting formats.
- Open dialogue and frank communication before any changes are made.
- Where appropriate, safeguards should be given regarding status or job changes, redundancies, etc.
- Full training before, during and after implementation.
- Reasonable, mutually agreed targets and norms.
- Full support for change from M Ltd management.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA 3.6: ADVANCED FINANCIAL MANAGEMENT

FRIDAY 16 DECEMBER 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

This question is compulsory and must be attempted.

QUESTION ONE – (COMPULSORY)

MARKA NEWS (MN) is a private broadcasting station in Zambia. The company wishes to diversify into the production of music after noticing the surge in a number of talented musicians and public call from the Government. The company has an equity beta of 1.26 and gearing level of 25% debt. However, the company's gearing level will change as a result of the proposed investment. The average equity beta for firms in the music production industry is 1.20 and gearing level of 35% debt.

The new investment in the production of music requires the procurement of new equipment at a cost of K1.1 million (net of issue costs). The investment will generate annual cash inflows of K975,000 for the first two (2) years and K700,000 for the last two (2) years. At the end of this time it will have no scrap value.

Corporation tax is payable in the same year at a rate of 30%. The equipment will attract capital allowance at the rate of 25% annually on a reducing balance basis.

The new investment will be financed by debentures 40% and rights issue of equity 60%. The debenture is redeemable in four (4) years' time. The issue costs are 4% on the gross equity issued and 2% on the gross debt issued.

Besides the proposed investment in the music industry, MN has other investment as follows:

Investment	Share
HT FM which has a beta (β) of 1.21	25%
PHX FM which has a beta (β) of 1.82	35%
JY FM which has the same risk as the market	30%
Government securities.	10%

Assume that the debt is risk free, that the risk free rate is 8% and that the expected return from the market portfolio is 20%.

MN is also planning on increasing its working capital for its foreign media business operations in August. To finance the increase in working capital, the treasury department for MN expects that in mid-September, it will need to borrow $1 million for three (3) months. However, the Chief Financial

Officer (CFO) of MN is concerned that interest rates might rise in intervening period. The funding is required on the last day of September. The company can borrow dollars at 11%. The following information is available:

August spot $ interest rate 10%
September three months Eurodollar futures 10% and the contract size is $1 million
The CFO anticipate three scenarios concerning the September spot rates which is 9%, 11% and 13%

Required:

(a) As a Financial Consultant, write a report to the board of MARKA NEWS evaluating the financial viability of the proposed investment in the production of music. (26 marks)

(b) Compute the overall expected rate of return from the other investments given above made by MARKA NEWS (MN) and provide the basis of your computation. (7 marks)

(c) Show how the MARKA NEWS (MN) treasury department might hedge its position using futures market operations based on the scenarios anticipated by the CFO. (7 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt any THREE (3) questions.

<u>QUESTION TWO</u>

You have been appointed as the Chief Financial Officer (CFO) of Multi -TV, a media company which is financed by private equity. There is considerable public interest in the company and it continues to have a very rapid rate of growth under the leadership of its dynamic founder and Chief Executive Officer, (CEO) Mr. Liywali, who owns over 30 per cent of the company's equity and has also loaned the business substantial sums to sustain its overseas development. The balance of the other investors consist of some small shareholdings held by current and past employees and the remainder is in the hands of a private equity company which is represented by two (2) Directors on the board.

You enjoy a substantial salary and package of other benefits. Your role description gives you overall responsibility to the board for the financial direction of the company, the management of its financial resources, direction and oversight of its internal control systems and responsibility for its risk management. After two (2) months in the job, you are called to a meeting with Mr. Liywali and the company's Non-Executive Chairman. In that time you have made significant progress in improving the financial controls of the business and the current year end, which is three (3) weeks away, looks very promising. The company's underlying earnings growth promises to be in excess of 20 per cent and its cash generation is strong. The CEO tells you that he would like you to put together a plan to take the company to full listing as a first step to him undertaking a substantial reduction in his financial stake in the business. He tells you that this discussion must be confidential, as he expects that the market would react adversely to the news. However, he would like to see what could be done to make sure that the year - end figures are as strong as possible. As CFO you have been given a substantial performance incentive, in the form of share options.

Required:

(a) Describe the general procedure for obtaining a listing on a stock exchange such as the Lusaka Securities Exchange (LuSE) or London Stock Exchange. (6 marks)

(b) Explain the pros and cons of such a step for a medium-sized company. (6 marks)

(c) Discuss any ethical considerations or concerns you may have concerning this proposed course of action. (8 marks)

[Total: 20 Marks]

QUESTION THREE

EOG Inc. is a company in the service industry which was established in the 1990s.The company has few tangible assets, limited to leased buildings, technology infrastructure, furniture and fittings and computers. The service industry to which EOG Inc. belongs has an average market to book ratio of 5.13. The book value of EOG Inc. is K4.813 million and it has 1.65 million shares in issue. EOG Inc. has just paid a dividend of K0.25 per share. The financial analysts are in consensus with Board of Directors' forecasts of 25% growth in earnings and dividends for the next two (2) years. Thereafter, a reasonable estimate is 15% growth for three (3) years followed by 7% growth to perpetuity. The market's required return on investments for this risk level is 20% per annum.

Required:

(a) Estimate a range of values per share for EOG Inc. using the Tobin's Q and dividend valuation methods. (14 marks)

(b) Discuss why using asset-based methodologies to value companies in EOG Inc.'s industry can be a challenge. (6 marks)

[Total: 20 Marks]

QUESTION FOUR

ZOZA Plc is a multinational company based in the UK with subsidiaries across the globe. ZOV Ltd is a 100% subsidiary of ZOZA Plc that operates in Zambia. The Zambian economy has consistently experienced huge deficit on its current account on the balance of payment which has worried the government. The board for ZOZA Plc is also worried about the economic situation in Zambia. The board is currently evaluating the impact of this economic situation on its business.

The board is also considering how to hedge the foreign currency transaction it is expecting to receive from a customer in the US on the 30 June amounting to $3 million. The current spot rate today 1 April is $/£ 1.5290 and ZOZA Plc expects that this rate will move in their favour. They have decided to purchase from the bank an option to sell $3 million on 30 June at an exercise price of $/£ 1.5300, and the bank have charged a premium of £60,000. As the Chief Financial Officer (CFO) of ZOZA Plc, you have been tasked by the board to assess the impact of the current account deficit and the outcome of the hedge.

Required:

(a) Discuss how the Zambian government might attempt to reduce the current account deficit on the balance of payments, and illustrate what impact such government action might have on ZOZA Plc. (14 marks)

(b) Illustrate the outcome on 30 June if the exchange rate on that date is:

(i) $/£ 1.5280

(ii) $/£ 1.6253

(6 marks)

[Total: 20 Marks]

QUESTION FIVE

Mop Plc, one of the major mining companies in Zambia, has been using hedging techniques to manage its exposure to financial risks. The company exports copper to Europe through the London metals Import market, based in the United Kingdom. Therefore, Mop Plc usually trades using the United States Dollar or the UK sterling. The company also has £1,000,000 loan and wishes to raise an additional £800,000 fixed rate bank loan to fund a consignment of Copper to the London metals Import market and additional capital investments. Mop Plc is able to obtain fixed rate finance at 8.5% or a variable rate loan at LIBOR + 0.5%. Using its bank as an intermediary, Mop Plc has been offered a swap arrangement with Vadenta, a smaller company that wishes to borrow at a fixed rate. Vadenta has been quoted a rate of 10.5% for a fixed rate loan or LIBOR + 1.1% for a floating rate loan. The bank charge for arranging a swap is 0.2% of the principal, and it is assumed that the net benefits will be shared equally between Mop Plc and Vadenta.

Required:

(a) Discuss the potential benefits and hazards of interest rate swaps as a tool for managing interest rate risk. (10 marks)

(b) Show the transactions involved, the bank charges and the interest terms payable if Mop Plc and Vadenta agree to the swap. (10 marks)

[Total: 20 Marks]

END OF PAPER

CA 3.6: ADVANCED FINANCIAL MANAGEMENT

SUGGESTED SOLUTIONS

SOLUTION ONE

(a)

To: The Board of Directors of MARKA NEWS

From: Financial Consultant

Subject: Financial Evaluation of Proposed Investment in Music Production

Refer to the subject above.

Following our evaluation of the financial information provided regarding the proposed investment in the production music, the project provide a positive Adjusted Present Value (APV) of K619, 279.10 as per attached appendix. Therefore, the project should be undertaken as it is expected to increase the shareholder's wealth by K619, 279.10.

Should you have any clarifications, please do not hesitate to contact the undersigned.

Yours Sincerely,

Financial Consultant

APPENDIX

FINANCIAL EVALUATION

Year	0	1	2	3	4
	K'000	K'000	K'000	K'000	K'000
Cashflows	-	975	975	700	700
Tax@30%	-	-293	-293	-210	-210
Tax relief	-	83	62	46	35
Equipment	-1,100	-	-	-	-
Net cashflows	-1,100	765	744	536	525
Discount@20%	1.000	0.833	0.694	0.579	0.482
Present Values	**-1,100.00**	**637.25**	**516.60**	**310.58**	**252.96**
Base Case NPV	**617.38**				

APV Calculations:

Base Case NPV	617.38
Less: PV of Issue Costs	
Equity	-27.50
Debt	-6.29
Add tax shield	35.69
APV	**619.28**

WORKINGS

1. Ungeared cost of equity

Ba= Be x Ve/Ve+Vd (1-t)

Ba= 1.26 x 0.65/0.65+0.35(1-0.3)

Ba=0.92

Ke= 8% + 0.92 (20%-8%)

Ke= 20%

2. Capital Allowances

Period	WDV (K'000)	CA@25%	Tax Relief@30%
1	1,100	275	83
2	825	206	62
3	619	155	46
4	464	116	35

3. Financing Decision

	K'000
Equity (60% x K1.1m)	660.00
Debt (40% x K1.1m)	440.00
	1,100.00
PV of Issue Costs :	
Equity (660 x 4/96)	27.50
Debt (440 x 2/98)	8.98

Less: Tax relief@30%	2.69
Net costs	6.29

PV of Tax Shield:

Total loan amount	448.98
Interest cost @8%	35.92
Annual tax relief@30%	10.78
Annuity factor for 4yrs@8%	3.312
PV of Tax Shield	35.69

(b) When an investment is made in a combination of several shares with different levels of systematic risk, then the overall β will be the weighted average of the individual share β's.

Therefore, the overall β will be **1.24** [(0.25 × 1.21) + (0.35 × 1.82) + (0.3 × 1) + (0.1 × 0)] and the overall expected return is **22.88%** [8% + 1.24(20% – 8%)]

(c) When interest rate rises the company will suffer and to hedge this position, the treasury department must sell Eurodollar futures. The company will borrow dollars at 11% and profit if spot rates rise above this level.

Number of contracts to be sold = $1million/$1million = 1

July spot interest rate	Cost of borrowing	Profit (loss)	Net cost
9%	$22,500	2% × $1m × 3/12= ($5,000)	$27,500
11%	$27,500	Nil	$27,500
13%	$32,500	2% × $1m × 3/12= $5,000	$27,500

Effective net cost = 27,500/1,000,000 × 12/3 × 100% = 11%

SOLUTION TWO

(a) Normally, obtaining a listing consists of three steps: *legal, regulatory and compliance.* In the Zambia, as in many other jurisdictions a company must ensure that it qualifies to issue shares to the public as opposed to a private placement. In the Zambia, a firm seeking listing must register as a public limited company. This entails a change in its memorandum and articles agreed by the existing members at a special meeting of the company.

The company must then meet the regulatory requirements of the Listing Agency which, in the Zambia, is Lusaka Securities Exchange (LuSE). These requirements impose a minimum size restriction on the company and other conditions concerning length of time trading. Once these requirements are satisfied the company is then is allowed to make a public offering of its shares.

The must then seek the approval of the Lusaka Securities Exchange (LuSE) for its shares to be traded. In principal it is open to any company to seek a listing on any exchange where shares are traded. LuSE imposes strict requirements and invariably the applicant company will need the services of a sponsoring broker that specializes in this type of work.

(b) The advantages of seeking a public listing are that it opens the capital market to the firm. It offers the company access to equity capital from both institutional and private investors and the sums that can be raised are usually much greater than can be obtained through private equity sources. The presence of the firm as a listed company on a major exchange also enhances its credibility as investors and the general public are aware that by doing so it has opened itself to a much higher degree of public scrutiny than is the case for a firm that is privately financed. The disadvantages are significant. A distributed shareholding does place the firm in the market for corporate control increasing the likelihood that the firm will be subject to a takeover bid. There is also a much more public level of scrutiny with a range of disclosure requirements. Financial accounts must be prepared in accordance with IFRS and with the relevant GAAP as well as the Companies Acts. Under the rules of the Lusaka Stock Exchange companies must also comply with its governance requirements. Much of this may be regarded as desirable within a privately owned company but the requirements to comply or explain imposed on a public company can impose a significant regulatory burden and exposure to critical comment.

(c) There is an ethical dimension to the request made by Mr Liywali. He is of course entitled to acquire or dispose of his equity claim as he sees fit but his position as a large shareholder does impose on him certain duties with respect to the other shareholders. He should not undertake any action which is prejudicial to them and in this case making any move towards listed status would require their consent. It may well be that the private equity firm involved has in mind its own exit strategy and that his proposed course of action would be acceptable to them. If the decision was made to go public his own intentions would be a material factor in the valuation of the firm and the offer price made to subscribers. An immediate intention to divest would need to be disclosed. There would appear to be nothing wrong at this stage with asking the CFO to investigate the matter on a confidential basis although the request that he or she should seek to enhance the earnings of the business should be resisted in as far as it represents an instruction to engage in earnings manipulation beyond that required to present a true and fair view of the affairs of the business.

Earnings management techniques whereby revenues and costs are accelerated/ decelerated to achieve desired earnings figures are severely limited by GAAP and in the US for example could lead to arraignment under the Sarbanes Oxley Act. The proposal that the CFO would be offered share options gives an impression of wrong doing. He or she is in a difficult position but does need to make it clear that it would be better to act in the best interests of all the shareholders and directors. An invitation to participate in a share option scheme is a fairly crude attempt to win support for the proposed course of action (as the shares are not yet quoted) and should be resisted.

SOLUTION THREE

(a) **Using the Dividend Valuation Method:**

Year	1	2	3	4	5
	K'000	K'000	K'000	K'000	K'000
Dividend	515.63	644.53	741.21	852.39	980.25
Discount@20%	0.833	0.694	0.579	0.482	0.402
Present Values	**429.52**	**447.30**	**429.16**	**410.85**	**394.06**

Total Present Values – 1 to 5 years = 2,110.89

PVs beyond year 5 = $\frac{D_t(1+g)}{Ke - g} = \frac{980.25\ (1+0.07)}{0.2 - 0.07} \times 0.402 = 3{,}243.42$

Total value of firm = K2, 110.89 + 3,243.42 = K5, 354.31

Value per share = K5,354.31/1650 = K3.25 per share

Using Tobin's 'Q' the share price is as follows:

Estimated value of EOG = K4.813m × 5.13 = K24.69m

Estimated share price = K24.69m/ 1.65m = K14.96 per share

The range of value per share is from K3.25 per share to 14.96 per share.

(b) Using asset based valuations in service industry
Using asset values to identify a suitable range of acquisition values for a company usually requires the use of the statement of financial position. For this reason, such an approach is generally problematic because of the historical nature of the figures used in the financial statements.
In this particular case of EOG Inc. there are very few tangible assets, limited to leased buildings, technology, furniture and fittings and computers, the value of which can be significantly lower than that of the business as a whole.
EOG Inc. operates in a service industry where businesses are required to develop expertise, networks and customer loyalty in order to be competitive. The main asset which is of interest is the intangible value of the business as represented by EOG Inc.'s reputation. This intellectual property is difficult to measure objectively. For this reason it can be easy to over or undervalue a potential target company when trying to estimate an acquisition value.

SOLUTION FOUR

(a)

Reasons for deficit

A current account deficit is caused when cash inflows from exports of goods and services, investment income and current transfers are lower than cash outflows on equivalent imports.

Actions to eliminate deficit

If the deficit is persistent, the government may decide to finance it for a period by running down foreign currency reserves, or by borrowing from international banks, donor countries or international organisations such as the IMF. However, action must eventually be taken to inhibit imports or encourage exports. One or more of the following actions may be taken:

(i) Increasing interest rates

This will reduce the demand for local borrowing and hence for purchases (including imports), as well as attracting foreign funds to take advantage of the high interest rate.

(ii) Further reduction in the money supply

This can be done by increasing credit restrictions, or imposing wage and price controls.
Decreasing government expenditure will take cash out of the economy and reduce the government's budget deficit.

(iii) Increasing taxation

This will reduce further the demand for purchases (including imports).

(iv) Devaluing the currency

Alternatively the currency can be allowed to float downwards, if it has previously been on a fixed exchange rate system. This will make export sales more competitive and imports more expensive.

(v) Controls

Imposing exchange controls (restrictions on selling the local currency), import tariffs and quotas can prevent or discourage purchases of imports. For countries which are part of the World Trade Organisation (WTO) such methods are restricted.

(vi) Subsidisation

Subsidising exports can be done in a variety of ways. Again this is restricted by the WTO.

(b)

Effect on multinationals

The effect on multi-national companies of the above economic measures taken by governments varies as to whether the local subsidiary is a net exporter or importer.

Subsidiary as exporter

If the subsidiary extracts raw materials or produces goods with a predominantly local cost input, the devaluation of the currency will lower real costs and assist it to increase export sales, although local costs of taxation and borrowing will increase. However, the multinational may attempt to use transfer pricing to avoid the tax bill and may be able to switch borrowing to another country.

Subsidiary as importer

If the subsidiary is a net importer, designed to sell goods to the local population, it will probably find business more difficult until the reduction in demand caused by the economic measures has taken its effect. An exception is where tariffs, quotas or exchange controls are imposed, in which case the local subsidiary of a multinational will have an advantage over the restricted imports from foreign competitors. However, such restrictive measures are discouraged by both the WTO and the IMF.

(i) Do not exercise option:

\$3m ÷ 1.5290	= £1,962,066.71
Less: premium	= £60,000
Net receipt	£1,902,006.71

(ii) Exercise option

\$3m ÷ 1.5300	= £1,960,784.31
Less: premium	= £60,000
Net receipt	£1,900,784.31

SOLUTION FIVE

Part (a)

Interest rate swaps are a useful tool for the management of interest rate risk because they allow a company to switch between fixed and variable rate loans, and therefore take a position on the future direction of interest rates. For example, a company may believe that interest rates have "bottomed out" and hence choose to swap its variable rate loans for fixed rate ones set at the current low interest rate level. In making this swap, the company is affirming its belief that future rates will rise ie taking a position.

In many but not all cases, swaps are used to obtain funding at a lower rate than that available elsewhere, but they can also be used beneficially to manage future cash flow patterns. If, for example, a company is operating in a market where its incoming cash flows are uncertain, it may wish to use a swap to ensure that it has fixed rate commitments that are wholly predictable. In so doing, it minimises uncertainty of outgoings even if it cannot eliminate the uncertainty in respect of incoming cash.

Interest rate swaps may also be used to manage interest rate risk in respect of investments rather than borrowings. In such cases a swap may be useful in enhancing the returns via speculation on interest rate movements. One such example would be a decision to swap a variable rate for a fixed rate investment in the belief that interest rates will fall.

A key advantage of interest rate swaps is that because they are an over the counter product, they can be tailored to meet the specific needs of the company, in terms of both their duration and value. Where the swap is arranged without the use of an intermediary, transaction costs are also kept to a minimum, although this also results in a disadvantage because it creates a counterparty credit risk. In the absence of an intermediary, there is no guarantee that the counterparty will fulfil their part of the contract, although this credit risk can be minimised by seeking a credit rating on the counterparty before agreeing to a swap.

Another disadvantage of swap arrangements is that the binding nature of the agreement means that a company may find itself unable to take advantage of changing interest rates that move in its favour. This problem is reinforced by the lack of a secondary market for swaps which means that it is difficult if not impossible to liquidate a contract.

Part (b)

The quality spread differential is 1.4% before bank charges.

Vadenta has a comparative advantage in the floating rate market and Mop Plc has a comparative advantage in the fixed rate market. Mop Plc therefore borrows at 8.5% fixed, and Vadenta borrows at LIBOR plus 1.1% floating.

Workings Mop Plc		Vadenta	
Borrows at	8.5%	Borrows at	LIBOR + 1.1 %
Receives from Vadenta	9.8%	Receives	LIBOR + 1.1%
Pays to Vadenta	LIBOR + 1.1 %	Pays to Mop Plc	9.8%
Net interest cost (before charges)	LIBOR + 0.21%	Net interest cost (before charges)	10.1% fixed

For Mop Plc there is a net saving of 0.4% over the floating rate of LIBOR + 0.5% that it would otherwise have to pay. The net gain is computed as follows:

Fixed rates: Pays 8.5% but receives 9.8 % giving a gain of 1.3%

Floating rates: Pays LIBOR + 1.1 % against available rate of LIBOR + 0.5%, giving an opportunity loss of 0.6%.

Net gain (before charges) 1.3 % less 0.6% = 0.7%

For Vadenta there is a net saving of 0.4% over the fixed rate of 10.5% that it would otherwise have to pay for a fixed rate loan. The net gain is computed as follows:
Floating rate: Pays LIBOR + 1.1% and receives LIBOR + 1.1 %, giving a gain of zero. Fixed Rate: Pays 9.8 % against an available rate of 10.5% giving an opportunity gain of 0.7 %.
Net gain = 0.7%
In total, the net gain of 1.4% that is shared between the two parties is exactly equal to the quality spread differential. The bank charge of 0.2% of the £800,000 principal equals £1,600 and this cost is also shared equally.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA 3.7: PUBLIC SECTOR AUDITS AND ASSURANCE

FRIDAY 16 DECEMBER 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 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 work for the Office of the Auditor General (OAG) as Principal Auditor. You were recently seconded to Malawi which set up the Supreme Audit Institution (SAI) last year. Your secondment is part of the program by the International Organization for Supreme Audit Institutions (INTOSAI) with the aim of building capacity in the Supreme Audit Institutions (SAIs) of countries which set up the institutions in the last three (3) years.

In the current year, you have planned, among other assignments, to carry out a performance audit of a road construction project carried out by the Roads Department under a grant from a consortium of donors. You have also planned to assess the effectiveness of the Supreme Audit Institution (SAI) with the aim of reviewing the adherence by the Supreme Audit Institution (SAI) with the general principles of public sector auditing. The Donors desired that a compliance audit should also be performed on the road project. Currently, the SAI does not have staff with necessary skills to perform a compliance audit. You have suggested that a direct reporting engagement for the compliance audit could be done under your supervision rather than an attestation engagement which could be demanding on the entity to be audited.

The following additional information is provided:
The donor funded road project is for 150 kilometers from Lilongwe to Mwami, the border with Zambia. It is a US$20 million, three (3) year project and it is currently in the second year.

The main objective of the road project is to reduce the congestion that is currently experienced along this stretch by making it into a double lane road. The number of road traffic accidents are high and this has been attributed to the single road lane with a high density of traffic.

The agreement with the consortium of donors has a number of conditions including the following:

1. All procurement of materials should be based on competitive bidding by suppliers and quality of materials should not be compromised.
2. The project will be carried out in three (3) phases and funding for the next phase will be subject to completion of the previous phase subject to independent audits by the Roads Inspectorate.
3. The inputs for the road project comprising stones, cement and bitumen should be in line with the estimates made by the Architects at the planning stage of the project. Any variations exceeding 5% will require the authority of the donors before proceeding with the works.
4. By the end of the second year of the project 90 kilometers of road construction works should have been completed. The Engineering report for the end of the second year shows that 60 kilometers had been completed. It is further estimated that by the end of the third year 110 kilometers will have been completed against the 150 kilometers funded.
5. It is estimated that when the project is completed, the rate of accidents on this road will reduce significantly by 70% of the current levels of accidents.

A preliminary review of the work carried out on the road project showed that there is no independent check of the quantities of materials received. The Road Engineer is responsible for receipting all materials and issuing for use. There is no written authority and all materials are issued using verbal instructions by the Road Engineer. In order to speed up the works, the construction team is paid a bonus if it exceeds the targeted kilometers for the year and spends within the budget. Due to budget constraints, the staffing levels at the supervisory level of the project are low resulting in poor controls and lack of segregation of duties. The project employs a large number of casual workers, some of whom are responsible for handling materials but they are poorly paid on an hourly basis.

The Supreme Audit Institution (SAI) of Malawi was established three (3) years ago and it is currently under the Ministry of Finance of that country. The senior Management of the Supreme Audit Institution (SAI) are all seconded from other countries and are supported by the Intentional Organization for Supreme Audit Institutions (INTOSAI). The rest of the local staff are accountants who previously worked in other government ministries and departments and were transferred to the Supreme Audit Institution (SAI) to fill up the vacancies. Most of them have work experience in accounting but with little experience in auditing in the public sector.

You have been provided with a sample of working papers for audits that were conducted by the Supreme Audit Institution (SAI) in the previous year. A review of the working papers shows that no reviews of the work carried out were made and in a majority of cases, there is no relationship between the reports issued and the working papers. Most of the findings in the reports are not supported by any work that was carried out. A visit at the offices of the audited entities for the sample reviewed shows that the management of the audited institutions only learnt of the audit findings at the time of appearing before the Parliamentary Public Accounts Committee to answer queries. In a number of instances, this resulted in the controlling officers disputing the findings and requesting to provide the evidence to show that the audit findings were not correct.

Required:

(a) Distinguish between attestation engagements and direct reporting engagements.

(4 marks)

(b) Evaluate the adherence with the general principles of public sector auditing by the Supreme Audit Institution (SAI) of Malawi. (8 marks)

(c) (i) Describe the performance audit that should be carried out in the Lilongwe to Mwami Road Project. (6 marks)

(ii) Describe six (6) audit procedures that should be performed in the Performance audit of the road project. (9 marks)

(d) (i) Identify and explain four (4) fraud risk factors in the road project.

(8 marks)

(ii) Explain the five (5) elements of the performance audit using information of the road project. (5 marks)

[Total: 40 Marks]

SECTION B

There are four (4) questions in this section.

Attempt any three (3) questions.

QUESTION TWO

You are an Audit Manager in the Office of the Auditor General (OAG) and you currently finalising the audit plan of the financial statement audit for the Ministry of Foreign Affairs and International Co-operation for the year ended 31 December 2021. The Minister of Foreign Affairs and International Co-operation has directed that the audit should be completed within one (1) month so as not to delay a special meeting which has been scheduled with key foreign donors. You met the Chairperson of the Audit Committee, the Controlling Officer and the newly promoted Chief Accountant.

The Ministry of Foreign Affairs and International Co-operation is in charge of embassies situated in many countries. Most of the senior employees are former politicians. They have wide experience in international relations and governance issues.

At the beginning of the year 2021, the Accountant-General directed that effective 2021, all ministries and spending agencies should migrate from cash basis to accruals basis International Public Sector Accounting Standards (IPSASs). He advised that this is a major project requiring careful planning and management.

The Chief Accountant provided you with a trial balance as at 31 December 2021. In addition to other issues, you noted the following:

1. **Cash holding** – the Ministry holds an equivalent of $1 million in cash at the year end, most of which is held in different foreign currencies.
2. **Gifts and donations** – the figure for gifts and donations appears to be overstated.

On 10 January 2022, inventory of stationery with a carrying amount of K600,000 was destroyed by a flash flood. The Audit Senior does not think it will be important to carry out audit procedures on this event.

Required:

(a) Explain the overall objectives of the public sector auditor in a financial statement audit. (3 marks)

(b) Identify and explain six (6) audit risks associated with the financial statement audit for the Ministry of Foreign Affairs and International Co-operation. (9 marks)

(c) Advise the Audit Senior whether it will be important to carry out audit procedures on the event which occurred on 10 January, 2022. (4 marks)

(d) Recommend four (4) audit procedures to be undertaken when auditing gifts and donations. (4 marks)

[Total: 20 Marks]

QUESTION THREE

Luapula University Teaching Hospital (LUTH) is a newly constructed government hospital situated in Kaoma in the Western Province of the Republic of Zambia. You are a Senior Audit Manager in the Office of the Auditor General (OAG) and you are responsible for the financial audit at LUTH for the year ended 31 December 2021. The audit is almost complete and the audit team has brought the following matters to your attention:

1. A provision of K5 million has been recognised in the financial statements and this has been assessed as material. The provision relates to a legal claim by a patient who suffered permanent damage to his leg following a seemingly negligently performed surgical operation. The audit team was unable to perform any audit work on this matter and have requested for your assistance. LUTH uses international accounting standards in the preparation of financial statements.
2. The Information Technology (IT) general controls at LUTH have been assessed as poor and the audit team have made suitable recommendations in the draft management letter. The audit team also identified serious deficiencies regarding IT application controls, especially the completeness of input data. They have asked you to recommend appropriate IT application controls to address this.
3. You are satisfied with the other contents of the draft management letter, although there is no introductory paragraph.

Required:

(a) (i) Explain the main purpose of Information Technology (IT) general controls. (2 marks)

(ii) State four (4) examples of IT general controls. (4 marks)

(b) (i) Draft an introductory paragraph for the management letter. (4 marks)

(ii) Recommend four (4) IT application controls which can be put in place to address the incompleteness of input data at Luapula University Teaching Hospital (LUTH). (4 marks)

(c) Recommend three (3) audit procedures to be performed on the provision recognised in the financial statements. Clearly state the reason for each audit procedure. (6 marks)

[Total: 20 Marks]

QUESTION FOUR

You are an Assistant Director in the Office of the Auditor General (OAG) and you are responsible for Ministerial Appropriations Audits. You have finalised the risk assessment for the compliance audit for a project for cancer patients which is wholly financed by a foreign donor. The foreign donor has given the Cancer Diseases Hospital (CDH) $4 million (equivalent to K72 million) for eligible cancer patients.

The agreement with the foreign donor states that:

1. Cancer patients with disposable income of over K4,500 are not eligible.
2. All eligible cancer patients must be registered with the Cancer Diseases Hospital at the University Teaching Hospital.
3. All eligible registered cancer patients are to receive cash to cover consultation and medication.
4. A committee of five (5) medical experts, with at least ten (10) years' experience in cancer diseases must be put in place to manage the funds.

5. A weekly report must be sent to the foreign donor showing the following:

    (i) Name of the beneficiaries
    (ii) Amount spent on each beneficiary
    (iii) Total amount utilised and the balance
    (iv) Comments from the committee regarding the overall impact on the cancer patients.

The Principal Auditor is new and wants to understand how materiality is determined in a compliance audit.

Required:

(a) Explain how materiality is determined in a compliance audit. (4 marks)

(b) Advise the audit team whether a deviation of K200 could be material in the compliance audit for the project in question. (3 marks)

(c) Identify and describe five (5) audit risks in respect of the compliance audit for the project for cancer patients. (10 marks)

(d) Describe three (3) audit procedures to be undertaken when carrying out compliance tests regarding the project for cancer patients. (3 marks)

[Total: 20 Marks]

QUESTION FIVE

The public sector auditors are required to carry out audits in accordance with the provisions of International Standards for Supreme Audit Institutions (ISSAIs). One such standard is ISSAI 100: *Fundamental Principles of Public Sector Auditing*.

One of the principles related to the audit process regardless of the nature of the public sector audit is that of evaluating the risk of fraud when planning a public sector audit. Fraud is generally considered as a significant risk in the public sector and the public sector auditor is required to be alert for any possibility of fraud which can cause misstatements in the subject matter information being audited.

Generally there are conditions that exist whenever fraud takes place or is likely to take place. These conditions are often described as the *'fraud triangle'* and public sector auditors should be familiar with these factors because they are required to remain alert for the existence of fraud.

The government collects large amounts of money from citizens and organizations through taxes and other levies. It is still the case that some of the money being collected is by way of cash payments to Government officials. The Government spends money for various activities and expenditure is required to follow the laid down Government procurement guidelines. Usually there is pressure by the party in power to please the public and because they are in charge of Government they can exert influence on how public funds should be spent.

Required:

(a) Define forensic investigation in public audit sector auditing. (2 marks)

(b) Describe, giving one (1) example for each, the three (3) main types of fraud that may take place in the public sector. (6 marks)

(c) Describe four (4) areas or factors in the public sector which give rise to the risk of fraud. (6 marks)

(d) Explain the three (3) elements of the *'fraud triangle'*. (6 marks)

[Total: 20 Marks]

END OF PAPER

CA 3.7 PUBLIC SECTOR AUDITS AND ASSURANCE

SUGGESTED SOLUTIONS

SOLUTION ONE

(a) **Distinction between attestation engagements and direct reporting engagements:**
An attestation engagement is one where the responsible party measures the subject matter against the criteria and presents the subject matter information. The auditor gathers sufficient appropriate audit evidence as a basis for reaching a conclusion.

An audit of financial statements is an example of an attestation engagement. The responsible party prepares the financial statements which are the subject of an audit by the public sector auditor.

A direct reporting engagement on the other hand is where the auditor measures and evaluates the subject matter against the criteria (The auditor produces the subject matter information) and also obtains evidence, by comparing the audit evidence against the criteria, which forms the basis of the conclusion or opinion.

A compliance audit can be an example of a direct reporting engagement whereby the auditor prepares the compliance statement against a given the criteria and forms a conclusion.

(b) **Evaluation of adherence with the general principles by the SAI of Malawi:**

- Except for the senior staff within the SAI who are seconded from other INTOSAI member countries, most of the staff working for the SAI do not have the necessary skills and competences to perform audits. This is contrary to the general principles of public sector auditing which require that the auditors should have the necessary skills to perform audits.
- A review of the previous year working papers shows that there is poor documentation of the work that was carried out resulting in there being no relationship between the information in the working papers and the conclusions reached.
  The general principles of public sector auditing require that the public sector auditors should prepare audit documentation that is sufficiently detailed to provide a clear understanding of the work performed which should form the basis of the conclusions reached.
- The fact that audited entities only learn of the audit finding at the time of appearing before the Parliamentary Public Accounts Committee suggests that there is poor communication between the Supreme Audit Institution (SAI) and the audited entities. This is contrary to the general principles of public sector auditing which require that there should be communication with the audited entity throughout the audit and that management of the audited entity should be kept informed of all audit related matters and provided with the of the observations and findings throughout the audit.
- An examination of previous working papers of the Supreme Audit Institutions (SAI) show that there are no reviews of working papers. This is contrary to the general principles which require that provisions of ISSAI 40 *Quality control for SAIs* should be followed in the performance of audits and this standard requires that all work performed should be reviewed by another person.

(c) (i) **Performance audit of the Lilongwe to Mwami road project:**

The objective of the performance audit that will be carried out on the Lilongwe to Mwami project aims at gathering evidence on whether the project has been carried out within the principle of value for money considering economy, efficiency and effectiveness.

Economy – The aim of considering economy is to establish whether the cost of materials and project is what should have been spent. The work will focus on whether the best prices and possibly lowest prices have been paid without compromising on quality.

Efficiency – Audit work will be done to establish whether there was economy in the use of inputs to the project. Consideration will be made on whether the same output would have been achieved using lesser inputs.

Effectiveness – The purpose of procedures to test for effectiveness are aimed at establishing whether or not the objective of the project has been achieved. In this case, the objective is to reduce road traffic accidents by 70% once the road is commissioned.

(ii) **Audit procedures in the performance audit:**

1. Establish criteria against which actual performance of the road project will be measured.
2. For a sample of procurements of materials purchased, confirm that they have been done through competitive bids as required in the agreement.
3. Evaluate the selection criteria for suppliers to ensure that the best price was considered without compromising on quality.
4. Evaluate the inputs to the project and measure against the suitable criteria to confirm if there is no wastage in the use of inputs.
5. Establish whether the distance of road works done could have been done using fewer materials.
6. Evaluate the outcome of the works done against the intended outcome and obtain explanations for the variations.
7. Measure the distance of road completed and compare with the intended outcome of 150 kilometers.
8. After completion and commissioning of the road, enquire and establish the level of road traffic accidents after commissioning the road to establish whether the objective of the project has been achieved.

(d) (i) **Fraud risk factors in the road project:**

1. The lack of independent checks on materials used on the project can lead staff to misappropriate the road construction materials knowing that nobody will countercheck the usage.
2. Lack of segregation of duties so that the Road Engineer is responsible for both receiving materials and issuing to use. The risk of falsification is high because of the lack of segregation of duties.
3. Verbal instructions by the Road Engineer can result in fraud by other staff by way of misusing or stealing materials because it will be difficult to confirm the verbal instructions in case of an investigation.

4. The bonus that will be paid based on the distance of road works done could pressure the team to falsify expenditure to show that it is within budget even when not simply in order to meet one of the conditions of a bonus being paid.
5. Poor internal controls are a fraud risk factors in that the perpetuators know they may not be found out due to poor controls.
6. Poor wages to casual workers couples with poor controls are a fraud risk factor to the casual workers who are responsible for handling materials.

(ii) **The elements of performance audit of the road project:**

1. **Objective:**
   The objective of the project is to construct a 150 kilometers double lane road from Lilongwe to Mwami. The second objective is to see a reduction in road traffic accidents once the road is completed and commissioned.

2. **Inputs:**
   The inputs consist of the US$20 million for the project and materials that will be procured for use in the road project.

   The **economy** of the project will be measured by establishing whether the best prices were paid for the inputs and whether the outcome could have been achieved using fewer resources.

3. **Processes:**
   The process is the actual road works that will be carried out to complete the project. This is the process of turning the inputs into the desired output.

4. **Outputs:**
   This is the actual outcome from processing the inputs. In the Lilongwe to Mwami road project, the outcome from processing the inputs at the end of the second year is 60 kilometers.

   Efficiency will be measured by comparing the outcome with the inputs to the project. Could more kilometers of road have been done with the same inputs?

5. **Outcome:**
   This is the desired output and at the end of the second year the desired output is 90 Kilometers of road works completed.
   The **effectiveness** of the project will be measured by comparing the input with the output and outcome of the project.

SOLUTION TWO

(a) Overall objectives of the public sector auditor in a financial statement audit in the public sector

The overall objectives of the public sector in a financial statement audit in the public sector are:

- Obtain reasonable assurance about whether the financial statements as a whole are free from material misstatements whether due to fraud or error, thereby enabling the auditor to express an opinion on whether the financial statements are prepared, in all material respects, in accordance with an applicable financial reporting framework.
- Report on the financial statements and communicate the results of the audit.

(b) Audit risks

- **Public sector** – this sector is inherently risky and this increases the overall audit risk associated with the assignment. The public sector is subject to substantial political risks.
- **Public scrutiny** – the sector is also subject to public scrutiny due to its impact on the economy. Hence, there may be pressure to manipulate figures.
- **Newly promoted Chief Accountant** – there is a risk that the financial statements have not been properly prepared due inexperience.
- **Accounting standards** – there is a risk that the restatements of the prior year figures have not been done in line with IPSASs.
- **Inventory valuation** – there is a risk that valuation for the inventory of stationery destroyed by a flash flood does not conform with IPSAS 14 *Events After the Reporting Date* requirements.
- **Geographical location** – the Ministry operates from diverse geographical locations, which adds to the risk of the audit.
- **Time pressure** – the Minister of Foreign Affairs and International Co-operation has directed that the audit should be completed within one (1) month. It may be very difficult to gather sufficient evidence to provide an appropriate assurance report within the time period.
- **Translation risk** – the Ministry holds $1 million in cash at the year end, most of which is held in foreign currencies. There is a risk that wrong exchange rates may be used, contrary to the guidance.

(c) Advice to the Audit Senior whether it will be important to carry out audit procedures on the event which occurred on 10 January, 2022

The event which occurred on 10 January 2022 is an example of subsequent events. The objective of conducting an audit is to form an opinion on the financial statement being audited. ISSAI 1560 *Subsequent events* provide guidance as regards the auditors' responsibilities for events that occur after the period end.

IPSAS 14 *Events After the Reporting Date* deals with the accounting treatment of events, favorable and unfavorable, occurring after the period end. These events are classified into two namely adjusting and non-adjusting events.

Management is responsible for correct accounting for such events requiring that adjusting events are adjusted in the financial statements and non-adjusting events are appropriately disclosed in the financial statements.

ISSAI 1560 *Subsequent events* give the following as the objective of the public sector auditor as regards such events:

- To confirm whether management has correctly accounted for events after the period end in accordance with IPSAS 14. Where the accounting treatment by management is incorrect, the public sector auditor will require that management makes the necessary amendments.
- To respond appropriately to facts that become known to the public sector auditor after the public sector auditor's report which would have caused him to amend the report had he known these facts before issuing the report.

Hence, it will important to carry out audit procedures on the event which occurred on 10 January 2022.

(d) Audit procedures to be undertaken when auditing gifts and donations

- Obtain a summary of all amounts of gifts and donations and agree a sample to the cash book and bank statements.
- For large gifts and donations above a certain amount, confirm that authorization for the payment has been made, e.g. by agreeing to minutes of management meetings
- Review correspondence with the recipients for confirmation of the amounts paid.
- Interview a sample of recipients in order to confirm the amount of the gifts and donations.
- Send confirmation letters to a sample of recipients. It may be advisable to use positive confirmation.
- For a sample of gifts, agree the amounts to supporting documents and evaluate their reasonableness.

SOLUTION THREE

(a) IT general controls

(i) IT general controls are controls which relate to the environment that computer systems operate within. This typically includes policies, procedures and practices which provide reasonable assurance that objectives are achieved including the proper design, development and implementation of IT systems and the on-going integrity of hardware, programs and data.

(ii) Types of general control include:

- **Physical security** – e.g. locked doors, cameras
- **Cyber-security** – e.g. firewalls, passwords
- **Access controls –** e.g. user logs, passwords etc.
- **System development** – e.g. approvals, rigorous testing
- **Program modification** – e.g. approvals, rigorous testing
- **Disaster recovery** – e.g. back-ups, disaster recovery plan etc.

(b) Luapula University Teaching Hospital

(i) **Draft introductory paragraph for the management letter**

"In accordance with our normal practice we set out in this letter certain matters which arose as a result of our review of the accounting systems and procedures operated by your hospital during our audit of the financial statements for the year ended 31 December 2021. We would point out that the matters dealt with in this letter came to our notice during the conduct of our normal audit procedures which are designed primarily for the purpose of expressing our opinion on the financial statements of your hospital. In consequence our work did not encompass a detailed review of all aspects of the system and cannot be relied on necessarily to disclose defalcations or other irregularities or to include all possible improvements in internal control."

(ii) Recommended IT application controls for addressing incompleteness of input:

- Document counts
- Programmed matching of input to an expected input control file
- Manual or programmed agreement of control totals
- One for one checking of processed output to source documents
- Procedures over resubmission of rejected inputs.

(c) Recommend audit procedures to be performed on the provision recognized in the financial statements

Audit procedures	Reasons for audit procedure
(1) Recalculate provision made.	To check that the provision has been calculated correctly and therefore testing for over or understatement of the provision.
(2) Discuss the provision with the directors.	To attempt to confirm whether the hospital is liable for the payment.
(3) Obtain a letter from the hospital's lawyers.	To provide evidence on whether the hospital may be liable for payment and check the amount provided is approximately correct.
(4) Review any correspondence with the patient.	To confirm the patient's claim.

(5) Check any payment made to the patient after the end of the year.	To confirm the accuracy of the amount stated in accruals.
(6) Consider the adequacy of disclosure of the provision.	To check whether the disclosure is in accordance with IAS 37 *Provisions, Contingent Liabilities and Contingent Assets.* .

SOLUTION FOUR

(a) Determination of materiality in a compliance audit

Materiality is determined by identifying the level of non-compliance that is likely to influence the decisions of the intended user(s). For some compliance audits, deciding materiality may be straightforward, such as when agreed-upon terms for a project specify that there must be no overspending in relation to an approved budget. In other cases, determining materiality is a matter for the auditor's professional judgement.

(b) Materiality of a deviation of K200

In general terms, a K200 deviation in respect of a project worth K72 million could be considered immaterial. However, if the project terms specify that there must be no overspending in relation to an approved budget, then a K200 deviation could be material.

(c) Main audit risks

- If there are weak controls even cancer patients with disposal income of over K4,500 could be beneficiaries. For example, some cancer patients could present fake documents in order to access the funds. It may not be easy for the public sector auditors to detect this.
- The registry clerks could be registering ineligible cancer patients in exchange for some form of bribe. If there is no strict supervision over the registration process, undesirable events, like bribes, may go unnoticed by the public sector auditors.
- Cash may be misappropriated by the committee especially if the committee is made of individuals who lack integrity. This will be difficulty for the public sector auditors to detect.
- Cancer patients may not use the cash for the intended purpose. This may not be detected especially if there are no approved credible providers of consultation and medication.
- The weekly report could be manipulated in order to conceal any wrong-doing.
- The composition of the committee could be changed so as to facilitate fraudulent activities, including fraudulent reporting.

(d) Audit procedures

- Ascertain and document the system, and evaluate the internal controls
- Review the minutes of the meetings of the committee and check for unusual events
- Obtain selected weekly reports and agree the reported figures to supporting documentation
- Randomly interview some cancer patients in order to appreciate the levels of service delivery. This must be agreed to the comments in the weekly report regarding the overall impact on the cancer patients.

SOLUTION FIVE

(a) Definition of forensic investigation:

A forensic investigation is one that is performed usually involving fraudulent activities. In most cases the outcome of a forensic investigation is litigation against those involved in the fraudulent activity.

(b) Three types of fraud in the public sector:

(i) Asset misappropriation:
This is a type of fraud that involves theft. This could be theft of cash or property belonging to the organization such as inventory.

(ii) Corruption fraud:
This is fraud that involves corrupt activities where through these means someone gets what they do not deserve. An example of a corruption act is bribing someone to gain favor such as bribing a procurement officer by way of a payment so that an order may be given to the one who paid the officer.

(iii) Financial statement fraud:
This is the fraud that involves falsification of financial statements in order to give an incorrect picture. An example of a financial statement fraud is the overstatement of inventory in the financial statement to conceal the theft of inventory.

(c) **Areas in public sector that give rise to risk of fraud:**

(i) **Grants received**
Custodians of public funds receive grants to carry out activities. Usually these grants come with conditions that should be followed in using the money. It is common to misapply and misappropriate grant funds through fraudulent activities. This usually happens through collusion and it is not easy to detect.

(ii) **Procurement of goods and services**
This is an area where fraud is prevalent. This could be done by way of overstating the prices when procuring materials or those responsible for procurement getting bribes in order to award orders or contracts.

(iii) **Abuse of authority by those in power**
This is another area or reason that has led to an increase in fraud in the public sector. This involves abuse of authority by those responsible and requiring subordinates to commit fraud. For example, pressurizing the subordinate to make an incorrect payment for goods or services not received.

(iv) **Poor internal controls**
Poor internal controls or ineffective controls in the public sector contribute to a rise in fraudulent activities. This is because the perpetuators know that they

are not likely to be found or that no action will be taken against those who violate internal controls.

(v) **Low salaries**
The increase in fraud in the public sector could also be attributed to low salaries in the public sector. This will happen when those responsible for public funds are poorly paid and in an effort to make ends meet they commit fraud to raise extra money.

(vi) **Handling of cash**
The risk to commit fraud is higher for those institutions or individuals who receive and handle cash in the course of their duties. This is because cash is readily available for use and ways of how to misuse it will be found by the fraudsters.

(d) Elements of the fraud triangle:

(i) **Opportunity** – This happens where there are weak controls and the individual involved believes that even if they commit the fraud they will not be found out. They take the weak internal controls as an opportunity.

(ii) **Rationalization –** This is where the individual involved reasons and wishes to justify why they commit the fraud. For example, employees who are poorly paid and payment of salaries is delayed over long periods they will try and justify the fraud that they undertake.

(iii) **Pressure –** This happens where the individual is under financial pressure and the only available means of removing the pressure is through committing fraud. For example, pressure to meet medical bills of a loved one could cause someone to commit fraud.

END OF SUGGESTED SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA 3.8: PUBLIC SECTOR FINANCIAL MANAGEMENT

FRIDAY 16 DECEMBER 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- (COMPULSORY)

The Government intends to buy a machine for its parastatal to start manufacturing plastic products on a large scale as part of promoting circular economy. The cost of the machine is K10 million with a useful life of six (6) years. The machine will require additional working capital of K1.7 million at the beginning of year 1. At the end of six (6) years the machine will be sold for scrap with an expected scrap value of 3% of the initial costs. Productions from the machine are expected to be 2 million packs per year.

Year	Selling Price (K)	Variable Costs (K)
1	50	44
2	50	44
3	65	58
4	70	58
5	70	62
6	75	62

Incremental fixed cost arising from the machine operation is projected to be K1.8 million per year. The after tax cost of Capital is 15% which it uses as a discount rate in its investment appraisal. Corporate rate tax is at 35% per annum. All capital allowances should be ignored.

The government of country Y has established the Treasury Department to handle functions such as financial risk management which include Interest risk exposure.

Required:

(a) (i) Calculate the NPV and advise government whether they should proceed with the investment and how they would manage the risks during implementations of the project. (18 marks)

(ii) Explain the Difference between Investment Appraisal in the Private Sector and Investment Appraisal in the Public Sector. (4 marks)

(b) Explain Interest rate risk and six (6) strategies which government can use to minimize exposure. (13 marks)

(c) A country in sub- Saharan Africa had its economic fundamentals significantly affected due to money laundering characterized by the political regime at the time. Despite the efforts by world leaders, co-operating partners and improvements in government systems, financial crimes have continued to rise. Law enforcement officers have failed to cope mainly due to manipulation of the systems by the criminals.

Required:

Write a report to your superior explaining the negative effects of money laundering on the economic performance of a country**.** (5 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt any THREE (3) questions.

QUESTION TWO

The assessment and reporting on public financial management using measurement frameworks such as the Public Expenditure and Financial Accountability (PEFA) is imperative for a country. As a Director of Finance, you have been tasked by the Accountant General to evaluate two key findings of a recent PEFA review for Zambia. Firstly, the report showed that the Ministry of Finance continuously submits the budget to the legislature on time. However, the country has been preparing Activity Based Budget (ABB) for the last five (5) years of which many Government institutions have experienced challenges to measure the outputs of their strategic plans. Furthermore, the budget was supplemented by over 25% at the end of the fiscal year. Secondly, pockets of fraud were reported in about 86.5% of the Ministries on account of no timely monthly bank reconciliations. In addition, majority of the bank reconciliations had unexplained reconciling differences.

Required:

(a) Explain the importance of Public Financial Management (PFM) system assessment and the measurement frameworks that can be used in the assessment. (8 marks)

(b) Ascertain the inadequacies in the Public Financial Management practice as shown by the PEFA review and explain how each relates to the relevant pillar of the PEFA framework. (8 marks)

(c) Provide recommendations of how each inadequacy in (b) above would be addressed. (4 marks)

[Total: 20 Marks]

QUESTION THREE

A North African country, recently presented its annual budget to parliament for the 2022 to 2023 fiscal year. The budget presentation went on smoothly and members of parliament endorsed the budget estimates. The country's GDP is largely dependent on agriculture and mining. The country's Agriculture Minister signed an export forward sale agreement with neighboring countries to export 2 million Metric Tonnes (MT) of maize and 1 million bags of Rice. The country's weather conditions were stable and indications were that there was going to be stable rainfall pattern. The Minister of Agriculture therefore felt that the country was going to have normal rainfall which was going to result into bumper harvest for all the rain fed crops.

The Minister of Mines also signed a forward sale agreement of Gold with the same neighboring country to export 11 billion US$ worth of Gold. The funds realized from these exports constituted a large percentage of sources of funds to finance specific functional areas of the budget like the General Public Service (15%), Defense and Security (5%) and Education (10%) among others.

The Private Sector Firms were contracted to manage the export of the maize and rice for the agriculture products and Gold from the mining companies.

The Government had earlier engaged the International Monetary Fund (IMF) to restructure some of the loans that the previous Government had acquired in the earlier years but had defaulted in payment of quarterly interest instalments and balloon payments when due. The IMF in its discussions highlighted the issues regarding fiscal shocks that most Governments face and in some instances overlook as they discussed in these negotiations.

Required:

(a) Explain Financial Risk particularly as it applies to the Private Sector Organizations from both the Short-term and Long-Term perspectives. (3 marks)

(b) Define the term Fiscal Risk and why it is important in comprehending the public sector Financial Risk. (7 marks)

(c) Discuss the various types of fiscal risks as categorized by the International Monetary Fund (IMF). (10 Marks)

[Total: 20 Marks]

QUESTION FOUR

The Government has decided to embark on the development of the Agriculture Sector; it believes that food security is critical in the stability of a nation. In this vein it has decided to establish an Agricultural Bank whose target is to largely finance the Agriculture Sector by offering various Long, Medium and Short-term facilities to its clients. The shareholding of this Agriculture Bank will not be 100% Government, but the Private Sector will also own shares (60% Government, 40% Private Investors). Considering that the Government Revenues were constrained due to reduced exports which were negatively affected by Covid 19 (Its recent balance of payments was in negative), it has decided to engage in Public Private Partnerships (PPPs). The private sector will be engaged in the procurement of agricultural equipment from Europe particularly to support irrigation projects and trucks to transport produce to the market from the farmers associations. The irrigation aspect was given priority as the country was also considered to be affected by Climate Change resulting into extreme weather conditions like drought. The road infrastructure was also given priority for easier, efficient and effective movement of produce to the urban markets and beyond.

Required:

(a) Explain the concept of Public Private Partnerships (6 marks)

(b) Explain the usefulness of Governments' engagement in Public Private Partnerships. (7 marks)

(c) Identify the disadvantages of Public Private Partnerships (7 marks)

[Total: 20 Marks]

QUESTION FIVE

Different Governments in the world carry out Public Expenditure largely due to economic and equity objectives. They address inefficiencies in the operation of the markets. However, in order for such expenditure to be undertaken by these Governments, they must identify Sources of Finance. Examples of the Key Sources include Domestic Revenue and Financing and Foreign Grants and Financing, among others.

Required:

(a) Explain the difference between revenue and financing (2 marks)

(b) Explain the five (5) categories of the Domestic Revenue and Financing component of the sources of finance of Government Expenditure. (10 marks)

(c) Discuss the different types of Market Failures that leads to Government expenditure. (8 marks)

[Total: 20 Marks]

END OF PAPER

Formulae

Modigliani and Miller Proposition 2 (with tax)

$$k_e = k_e^i + (1 - T)(k_e^i - k_d)\frac{V_d}{V_e}$$

Two asset portfolio

$$s_p = \sqrt{w_a^2 s_a^2 + w_b^2 s_b^2 + 2w_a w_b r_{ab} s_a s_b}$$

The Capital Asset Pricing Model

$$E(r_i) = R_f + \beta_i(E(r_m) - R_f)$$

The asset beta formula

$$\beta_a = \left[\frac{V_e}{(V_e + V_d(1 - T))}\beta_e\right] + \left[\frac{V_d(1 - T)}{(V_e + V_d(1 - T))}\beta_d\right]$$

The Growth Model

$$P_o = \frac{D_o(1 + g)}{(r_e - g)}$$

Gordon's growth approximation

$$g = br_e$$

The weighted average cost of capital

$$WACC = \left[\frac{V_e}{V_e + V_d}\right]k_e + \left[\frac{V_d}{V_e + V_d}\right]k_d(1 - T)$$

The Fisher formula

$$(1 + i) = (1 + r)(1 + h)$$

Purchasing power parity and interest rate parity

$$S_1 = S_0 x \frac{(1 + h_c)}{(1 + h_b)} \qquad F_0 = S_0 x \frac{(1 + i_c)}{(1 + i_b)}$$

Modified Internal Rate of Return

$$MIRR = \left[\frac{PV_R}{PV_I}\right]^{\frac{1}{n}}\left(1 + r_e\right) - 1$$

The Black-Scholes option pricing model

$$c = P_a N(d_1) - P_e N(d_2) e^{-rt}$$

Where:

$$d_1 = \frac{\ln(P_a / P_e) + (r + 0.5s^2)t}{s\sqrt{t}}$$

$$d_2 = d_1 - s\sqrt{t}$$

The Put Call Parity relationship

$$p = c - P_a + P_e e^{-rt}$$

Present Value Table

Present value of 1 i.e. $(1 + r)^{-n}$

Where r = discount rate
n = number of periods until payment

Discount rate (r)

Periods (n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0·990	0·980	0·971	0·962	0·952	0·943	0·935	0·926	0·917	0·909	1
2	0·980	0·961	0·943	0·925	0·907	0·890	0·873	0·857	0·842	0·826	2
3	0·971	0·942	0·915	0·889	0·864	0·840	0·816	0·794	0·772	0·751	3
4	0·961	0·924	0·888	0·855	0·823	0·792	0·763	0·735	0·708	0·683	4
5	0·951	0·906	0·863	0·822	0·784	0·747	0·713	0·681	0·650	0·621	5
6	0·942	0·888	0·837	0·790	0·746	0·705	0·666	0·630	0·596	0·564	6
7	0·933	0·871	0·813	0·760	0·711	0·665	0·623	0·583	0·547	0·513	7
8	0·923	0·853	0·789	0·731	0·677	0·627	0·582	0·540	0·502	0·467	8
9	0·941	0·837	0·766	0·703	0·645	0·592	0·544	0·500	0·460	0·424	9
10	0·905	0·820	0·744	0·676	0·614	0·558	0·508	0·463	0·422	0·386	10
11	0·896	0·804	0·722	0·650	0·585	0·527	0·475	0·429	0·388	0·305	11
12	0·887	0·788	0·701	0·625	0·557	0·497	0·444	0·397	0·356	0·319	12
13	0·879	0·773	0·681	0·601	0·530	0·469	0·415	0·368	0·326	0·290	13
14	0·870	0·758	0·661	0·577	0·505	0·442	0·388	0·340	0·299	0·263	14
15	0·861	0·743	0·642	0·555	0·481	0·417	0·362	0·315	0·275	0·239	15

(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0·901	0·893	0·885	0·877	0·870	0·862	0·855	0·847	0·840	0·833	1
2	0·812	0·797	0·783	0·769	0·756	0·743	0·731	0·718	0·706	0·694	2
3	0·731	0·712	0·693	0·675	0·658	0·641	0·624	0·609	0·593	0·579	3
4	0·659	0·636	0·613	0·592	0·572	0·552	0·534	0·516	0·499	0·482	4
5	0·593	0·567	0·543	0·519	0·497	0·476	0·456	0·437	0·419	0·402	5
6	0·535	0·507	0·480	0·456	0·432	0·410	0·390	0·370	0·352	0·335	6
7	0·482	0·452	0·425	0·400	0·376	0·354	0·333	0·314	0·296	0·279	7
8	0·434	0·404	0·376	0·351	0·327	0·305	0·285	0·266	0·249	0·233	8
9	0·391	0·361	0·333	0·308	0·284	0·263	0·243	0·225	0·209	0·194	9
10	0·352	0·322	0·295	0·270	0·247	0·227	0·208	0·191	0·176	0·162	10
11	0·317	0·287	0·261	0·237	0·215	0·195	0·178	0·162	0·148	0·135	11
12	0·286	0·257	0·231	0·208	0·187	0·168	0·152	0·137	0·124	0·112	12
13	0·258	0·229	0·204	0·182	0·163	0·145	0·130	0·116	0·104	0·093	13
14	0·232	0·205	0·181	0·160	0·141	0·125	0·111	0·099	0·088	0·078	14
15	0·209	0·183	0·160	0·140	0·123	0·108	0·095	0·084	0·074	0·065	15

Annuity Table

Present value of an annuity of 1 i.e. $\frac{1 - (1 + r)^{-n}}{r}$

Where r = discount rate
n = number of periods

Discount rate (r)

Periods (n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0·990	0·980	0·971	0·962	0·952	0·943	0·935	0·926	0·917	0·909	1
2	1·970	1·942	1·913	1·886	1·859	1·833	1·808	1·783	1·759	1·736	2
3	2·941	2·884	2·829	2·775	2·723	2·673	2·624	2·577	2·531	2·487	3
4	3·902	3·808	3·717	3·630	3·546	3·465	3·387	3·312	3·240	3·170	4
5	4·853	4·713	4·580	4·452	4·329	4·212	4·100	3·993	3·890	3·791	5
6	5·795	5·601	5·417	5·242	5·076	4·917	4·767	4·623	4·486	4·355	6
7	6·728	6·472	6·230	6·002	5·786	5·582	5·389	5·206	5·033	4·868	7
8	7·652	7·325	7·020	6·733	6·463	6·210	5·971	5·747	5·535	5·335	8
9	8·566	8·162	7·786	7·435	7·108	6·802	6·515	6·247	5·995	5·759	9
10	9·471	8·983	8·530	8·111	7·722	7·360	7·024	6·710	6·418	6·145	10
11	10·37	9·787	9·253	8·760	8·306	7·887	7·499	7·139	6·805	6·495	11
12	11·26	10·58	9·954	9·385	8·863	8·384	7·943	7·536	7·161	6·814	12
13	12·13	11·35	10·63	9·986	9·394	8·853	8·358	7·904	7·487	7·103	13
14	13·00	12·11	11·30	10·56	9·899	9·295	8·745	8·244	7·786	7·367	14
15	13·87	12·85	11·94	11·12	10·38	9·712	9·108	8·559	8·061	7·606	15

(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0·901	0·893	0·885	0·877	0·870	0·862	0·855	0·847	0·840	0·833	1
2	1·713	1·690	1·668	1·647	1·626	1·605	1·585	1·566	1·547	1·528	2
3	2·444	2·402	2·361	2·322	2·283	2·246	2·210	2·174	2·140	2·106	3
4	3·102	3·037	2·974	2·914	2·855	2·798	2·743	2·690	2·639	2·589	4
5	3·696	3·605	3·517	3·433	3·352	3·274	3·199	3·127	3·058	2·991	5
6	4·231	4·111	3·998	3·889	3·784	3·685	3·589	3·498	3·410	3·326	6
7	4·712	4·564	4·423	4·288	4·160	4·039	3·922	3·812	3·706	3·605	7
8	5·146	4·968	4·799	4·639	4·487	4·344	4·207	4·078	3·954	3·837	8
9	5·537	5·328	5·132	4·946	4·772	4·607	4·451	4·303	4·163	4·031	9
10	5·889	5·650	5·426	5·216	5·019	4·833	4·659	4·494	4·339	4·192	10
11	6·207	5·938	5·687	5·453	5·234	5·029	4·836	4·656	4·486	4·327	11
12	6·492	6·194	5·918	5·660	5·421	5·197	4·988	4·793	4·611	4·439	12
13	6·750	6·424	6·122	5·842	5·583	5·342	5·118	4·910	4·715	4·533	13
14	6·982	6·628	6·302	6·002	5·724	5·468	5·229	5·008	4·802	4·611	14
15	7·191	6·811	6·462	6·142	5·847	5·575	5·324	5·092	4·876	4·675	15

Standard normal distribution table

	0·00	0·01	0·02	0·03	0·04	0·05	0·06	0·07	0·08	0·09
0·0	0·0000	0·0040	0·0080	0·0120	0·0160	0·0199	0·0239	0·0279	0·0319	0·0359
0·1	0·0398	0·0438	0·0478	0·0517	0·0557	0·0596	0·0636	0·0675	0·0714	0·0753
0·2	0·0793	0·0832	0·0871	0·0910	0·0948	0·0987	0·1026	0·1064	0·1103	0·1141
0·3	0·1179	0·1217	0·1255	0·1293	0·1331	0·1368	0·1406	0·1443	0·1480	0·1517
0·4	0·1554	0·1591	0·1628	0·1664	0·1700	0·1736	0·1772	0·1808	0·1844	0·1879
0·5	0·1915	0·1950	0·1985	0·2019	0·2054	0·2088	0·2123	0·2157	0·2190	0·2224
0·6	0·2257	0·2291	0·2324	0·2357	0·2389	0·2422	0·2454	0·2486	0·2517	0·2549
0·7	0·2580	0·2611	0·2642	0·2673	0·2704	0·2734	0·2764	0·2794	0·2823	0·2852
0·8	0·2881	0·2910	0·2939	0·2967	0·2995	0·3023	0·3051	0·3078	0·3106	0·3133
0·9	0·3159	0·3186	0·3212	0·3238	0·3264	0·3289	0·3315	0·3340	0·3365	0·3389
1·0	0·3413	0·3438	0·3461	0·3485	0·3508	0·3531	0·3554	0·3577	0·3599	0·3621
1·1	0·3643	0·3665	0·3686	0·3708	0·3729	0·3749	0·3770	0·3790	0·3810	0·3830
1·2	0·3849	0·3869	0·3888	0·3907	0·3925	0·3944	0·3962	0·3980	0·3997	0·4015
1·3	0·4032	0·4049	0·4066	0·4082	0·4099	0·4115	0·4131	0·4147	0·4162	0·4177
1·4	0·4192	0·4207	0·4222	0·4236	0·4251	0·4265	0·4279	0·4292	0·4306	0·4319
1·5	0·4332	0·4345	0·4357	0·4370	0·4382	0·4394	0·4406	0·4418	0·4429	0·4441
1·6	0·4452	0·4463	0·4474	0·4484	0·4495	0·4505	0·4515	0·4525	0·4535	0·4545
1·7	0·4554	0·4564	0·4573	0·4582	0·4591	0·4599	0·4608	0·4616	0·4625	0·4633
1·8	0·4641	0·4649	0·4656	0·4664	0·4671	0·4678	0·4686	0·4693	0·4699	0·4706
1·9	0·4713	0·4719	0·4726	0·4732	0·4738	0·4744	0·4750	0·4756	0·4761	0·4767
2·0	0·4772	0·4778	0·4783	0·4788	0·4793	0·4798	0·4803	0·4808	0·4812	0·4817
2·1	0·4821	0·4826	0·4830	0·4834	0·4838	0·4842	0·4846	0·4850	0·4854	0·4857
2·2	0·4861	0·4864	0·4868	0·4871	0·4875	0·4878	0·4881	0·4884	0·4887	0·4890
2·3	0·4893	0·4896	0·4898	0·4901	0·4904	0·4906	0·4909	0·4911	0·4913	0·4916
2·4	0·4918	0·4920	0·4922	0·4925	0·4927	0·4929	0·4931	0·4932	0·4934	0·4936
2·5	0·4938	0·4940	0·4941	0·4943	0·4945	0·4946	0·4948	0·4949	0·4951	0·4952
2·6	0·4953	0·4955	0·4956	0·4957	0·4959	0·4960	0·4961	0·4962	0·4963	0·4964
2·7	0·4965	0·4966	0·4967	0·4968	0·4969	0·4970	0·4971	0·4972	0·4973	0·4974
2·8	0·4974	0·4975	0·4976	0·4977	0·4977	0·4978	0·4979	0·4979	0·4980	0·4981
2·9	0·4981	0·4982	0·4982	0·4983	0·4984	0·4984	0·4985	0·4985	0·4986	0·4986
3·0	0·4987	0·4987	0·4987	0·4988	0·4988	0·4989	0·4989	0·4989	0·4990	0·4990

This table can be used to calculate $N(d)$, the cumulative normal distribution functions needed for the Black-Scholes model of option pricing. If $d_i > 0$, add 0·5 to the relevant number above. If $d_i < 0$, subtract the relevant number above from 0·5.

CA 3.8 PUBLIC SECTOR FINANCIAL MANAGEMENT

SUGGESTED SOLUTIONS

SOLUTION ONE

a) Calculate:

i) The NPV and advise government whether they should proceed with the investment.

'000

Year	0	1	2	3	4	5	6
Sales		100,000	100,000	130,000	140,000	140,000	150,000
VC		(88,000)	(88,000)	(116,000)	(116,000)	(124,000)	(124,000)
FC		(1,800)	(1,800)	(1,800)	(1,800)	(1,800)	(1,800)
Taxable Income		10,200	10,200	12,200	22,200	14,200	24,200
Tax 35%		(3,750)	(3,750)	(4,270)	(7,770)	(4,970)	(8,470)
After Tax Cashflows		6,450	6,450	7,930	14,430	9,230	15,730
Machine Cost	(10,000)						
Working Capital	(1,700)						1700
Scrap Value							300
Net Cashflow	(11,700)	6,450	6,450	7,930	14,430	9,230	17,730
DF 15%	1	0.870	0.756	0.658	0.572	0.497	0.432
Present Value	(11,700)	5,611.50	4,876.20	5,217.94	8,253.96	4,587.31	7,659.36

K24,506.27. Positive NPV. Government should proceed with the Investment

Mitigation of risks include:

- Consult with stakeholders early to ensure requirements are properly identified
- Avoid decisions that are irreversible and restrict alternative courses of action
- Use pilot studies to gain greater information on costs and benefits
- Ensure there is flexibility designed into the project so that certainties can be adapted to;
- Take a precautionary approach against risks with catastrophic outcomes
- Utilise simpler technology and methods
- Consider alternative options that are less inherently risky even if they have lower expected benefits (for example a maxim approach)
- Abandon the project if the risks are just too inherently great
- Look for contractual arrangements to enable risk transfer

ii) Explain the Difference between Investment Appraisal in the Private Sector and Investment Appraisal in the Public Sector**.**

Private Sector :

- Focus is on cashflow analysis - how cashflows of individual entity will be impacted by capital investment decisions

Public Sector

- Net value of the project to society – measures wider and economical societal benefit

S/N

b) The government of country Y has established the Treasury Department to handle functions such as financial risk management, which include Interest risk exposure. Explain Interest rate risk and how government can minimize exposure.

- Interest rate risk is the risk of uncertainty of a possible loss that could arise due to movements or changes in interest rates.

Ways of managing interest rate risk Interest rate risk can be managed using a variety of strategies. Internal strategies that may be used include the following:

- Interest matching, which involves matching the interest type on the borrowing with the interest type on the investment to be financed. For instance, an investment that will return constant cash flows is financed with a fixed-rate loan.
- Interest netting involves setting off interest receivables and interest payables to reduce the underlying exposure to a lower amount that may be hedged using external strategies.
- Interest smoothing, which involves balancing the amount of fixed-rate loans with variable-rate loans. With equal proportions of fixed-rate and variable-rate loans, any movement in interest rates will bring both losses and gains of equal amounts that would net off.

External strategies for managing interest rate risks include the following:

- Forward rate agreement, which involves hedging the interest rate exposure with a forward contract with a bank.
- Interest rate futures involve hedging the underlying interest rate exposure by borrowing in futures (i.e., selling futures contract) or lending in futures (i.e., buying futures contract).
- Option on interest rate futures, which involves buying a right to borrow or lend in futures. This permits the entity to enjoy gains upside when the option's strike interest rate tends to be more favourable than the futures interest rate.
- Interest rate swap, which involves swapping, fixed interest payments for variable interest payment

c) Write a report to your superior explaining why money laundering possess a big threat to the economic order of a country.

- Money laundering puts large sums of illegal money into the hands of criminals who use such funds on financial and political crises and upheavals.
- Money launderers would often set up Ponzi schemes which entice people to withdraw their savings from the traditional deposit takers and fund managers into their scheme. This tends to undermine the official financial and banking system of the countries in which they operate.
- When they succeed, they introduce large amounts of money into the economy without an immediate corresponding rise in goods and services, resulting in hyperinflation. As a result, weak third world countries may not be able to absorb the shocks and their economies may crumble.
- Money laundering has been found to be a significant source of funds to international terrorist organisations. They use the resources to engage in terrorist activities that lead to wanton destruction of human lives and properties. In countries where money launderers and terrorists gain a strong foothold, they become failed states.
- Money launderers could use their ill-gotten money to finance coups de tat in countries facing hardships or poverty.

SOLUTION TWO

(a) The importance of PFM system include the following:

i) It provides governments, legislatures, citizens and those who provide financing with an overview of the PFM system.

ii) It gives those stakeholders an understanding of how this will affect PFM outcomes, including the delivery of public goods and services and fiscal sustainability.

iii) It provides the foundation from which reforms can be planned and made.

The PFM system measurement frameworks include:

i) Public Expenditure and Financial Accountability (PEFA): The focus of PEFA is primarily on financial processes centred on the budget cycle and the operational performance of certain key elements of this rather than the entire PFM system.

ii) Public Expenditure Tracking Survey (PET): This is designed to provide information on actual public spending from different tiers of government by collecting micro-level data from frontline service delivery facilities. It examines characteristics of the facility, financial flows, outputs and accountability arrangements.

iii) OECD Principles of Budgetary Governance: Provides guidance on an overview of good practise across the budget cycle based on ten principles. Also provides support for other aspects of good public governance.

iv) The Open Budget Index: Independent, comparative measure of central government budget transparency. It focuses specifically on whether the government provides the public with timely access to comprehensive budget information.

v) SIGMA Principles of Public Administration: Focuses on Public Administration reform principles based on internationally recognised good governance principles such as accountability, reliability, predictability, participation, openness, transparency, efficiency and effectiveness.

(b) The first inadequacy is that many of the government institutions have shown that it has been a challenge to measure the outputs of their strategic plans. Furthermore, the budget was supplemented by over 25%. The relevant applicable pillar is Pillar 1 which focuses on Budget reliability. This pillar requires that the government budget is realistic and is implemented as intended. Based on the approval of a supplementary budget of over 25%, this leads to a huge variance of the expenditure against the revenues that were projected. In addition, the institutions indicated that they had challenges in measuring outputs which imply that the budget is prepared based on previous years' activities other than institutions thinking through their activities and programmes.

The second inadequacy is that 86.5% of the Ministries accounts were not reconciled on a monthly basis and many of the bank reconciliation had unexplained reconciling differences which lead to pockets of fraud across Ministries. The applicable is Pillar 6 which focuses on Accounting and Reporting. The pillar requires that accurate and reliable records are maintained, and information is produced and disseminated at appropriate times to meet decision-making, management, and reporting needs. Therefore, the failure to prepare bank reconciliation on monthly basis showed a lack of control over public finances and contrary to pillar 6.

(c) The first inadequacy will require the budget to be prepared based on outputs which will be more forward looking as the focus is on the expected output from government activities and programmes. The second inadequacy should be resolved through timely monthly bank reconciliations and concerned officers should be reminded of their responsibility. The unexplained reconciling differences should be resolved and issues that involves that banks should communicated with the respective banks.

SOLUTION THREE

(a). **Explain Financial Risk particularly as it applies to the Private Sector Organizations from both the Short-term and Long- Term perspectives.**

Financial Risk Management in the private sector is largely based on the risks associated with cash flows of the firm. The ability to manage its current assets to meet its current liabilities effectively. These includes fluctuations in exchange rates that may have an impact on future selling prices and turnover, affecting the firm's market status and value. Changes in interest rates which can also affected the cost of capital and the return on investments.

In the long-term, value is created from investment in profitable ventures, and to create shareholder value, such investments require that they exceed the firm's weighted average cost of capital.

In the Public Sector, the complications arise due to the correlation between the state and its citizens, the legal and economic context in which public expenditure is funded and delivered. Further, the additional challenges posed by the political environment in which public sector organisations operate. The public sector's financial measurement is based on the effective, efficient and availability and delivery of the service goals as planned.

(b). **Define the term fiscal risk and why it is important in comprehending the public sector financial risk**

Fiscal risks are deviations of fiscal outcomes from the expected at the time of government budget or other macroeconomic forecast that have an impact on the government's finances and ability to fund public goods and services.

Fiscal risks are critical in comprehending the wider public sector financial risk because of the following factors:

i. They can be massive- Unplanned and unanticipated macroeconomic deteriorations result in sharp increases in government deficits and debt.
ii. Their impact can be highly nonlinear- The fiscal outcomes of significant macroeconomic shocks are usually greater than smaller shocks. This is due to the fact that spending is usually either fixed or may even rise in response to shocks, while revenues decline significantly.
iii. They are highly correlated-Other shocks are triggered by macroeconomic downtowns which can include financial crises and the collapse of state owned enterprises.
iv. Biased towards downside-Positive fiscal shocks usually can be anticipated and incorporated into forecasts.

(c). **Identify the various types of fiscal Risks as categorized by the International Monetary Fund (IMF).**

The International Monetary Fund (IMF) categorized fiscal risk as follows:

Endogenous or exogenous:

Endogenous risks- These are risks that that are generated from government activities or which can be influenced by government actions.

Exogenous risks- These are risks that arise from actions or events outside of government control; for example global commodity price volatility.

Continuous or discrete risks:

Continuous risks- These are regular events that result into outturns which are not the same as the forecasts which can be incorporated into fiscal settings.

Discrete risks- those risks that occur irregularly, or may not have occurred. Such risks could be:

i. Probable- In the event that they are probable, they should be provisioned for in the budgets and medium-term expenditure forecasts.
ii. Possible- These risks are considered likely to occur at some point but not in the near-term
iii. Remote- potentially significant but difficult to predict when if ever they will occur e.g. natural disasters.

SOLUTION FOUR

(a). **Define the concept of Public Private Partnerships**

For a country to develop, it must carry out capital projects which include; construction of roads, hospitals and clinics, schools among other capital projects. In this particular case the establishment of an Agriculture Bank in which the private sector was engaged in the procurement of agricultural equipment from Europe particularly to support irrigation projects and trucks to transport produce to the market from the farmers associations. These capital projects were to be undertaken by the Private Sector.

In this type of partnership (PPP), the ownership and also in most instances, the operation of these assets are mixed with the associated risk shared between the public and private sectors.

It is a term that is usually used to describe a long-term contractual arrangement for the provision of a public asset and related services in exchange for performance-based payments linked to the asset's availability and/use and the delivery of the related services. There are different models and arrangements which include leasing, concessions, design-build-operate (DBO), Build-own-operate-transfer (BOOT). Even if there are different models, they have common characteristics like financing, construction, ownership, demand risk, availability risk and maintenance.

(b). **Explain clearly the usefulness of Governments' engagement in Public Private Partnerships**

There are various benefits in the engagement of using the Public Private Partnerships (PPP) to implement capital projects. The following are the advantages:

i. Provides external finance for the construction of an asset that the public sector may be unable to do so.
ii. Possibility of improving efficiency and effectiveness by achieving an allocation of risks to whichever party in the public or private sector is best able to manage them.
iii. Facilitates and encourages innovation in approach by concentrating of performance indicators and outputs.
iv. Tying of payments to the time when asset construction of assets is completed ensures that private sector is incentivized to deliver on time.
v. Complete life costs of assets including ongoing maintenance are explicitly considered in contracts and design resulting into improved efficiency.
vi. Connecting payments to output against performance indicators incentivizes private sector to meet service levels
vii. Financial due diligence procedures implemented by those providing finance reduces risk of problems emerging following signing of contracts.

(c). **Identify the disadvantages of Public Private Partnerships**

There are noted disadvantages associated with the Public Private Partnership or private provision model. These include the following:

i. When the cost of government borrowing is compared with external financial, the external financing may prove more expensive.
ii. Even if the public sector is paying for the transfer of risk to the private sector, ultimately the risk always lies with the public sector in the event that the services provided are below par.
iii. 'Off balance sheet' methodology of financing may encourage public sector to use PPP or private provision model when not value for money.
iv. Long-term nature of financing demands long-term service contracts that in most cases are inflexible when there is volatility in circumstances.

v. In the event that the there is an adjustment or cancellation of the contract, significant costs are attracted as a result of reimbursing the private sector as a result of determination of future lost profits.
vi. It is more complicated as compared to conventional procurement which can increase costs and timescales to deliver.
vii. Requires a range of commercial, procurement, legal and financial skills that may not be easily found in the public sector.

SOLUTION FIVE

(a). **Explain the difference between revenue and financing**

There are various sources of public revenue and other financing that is utilised to finance the delivery of public goods and services. The revenue generating activities that the government engages in includes that of taxation, fees for the utilization of public goods and services or grants.

The other source is that of financing activities such as borrowing from domestic and foreign sources.

(b). **Identify the 5 (five) categories of the Domestic Revenue and Financing component of the sources of finance of Government Expenditure.**

- There are various categories of domestic revenue and financing. Under Domestic Income Tax include the following:

i. Company Income Tax
ii. Pay As You Earn(PAYE)
iii. Withholding Tax and other
iv. Mineral Royalty

- Value Added Tax- This is an indirect tax levied in the supply chain at each point where value is added to a good or service.
- Customs and Excise- Customs duty is a levy/tax charged on imported goods, whereas excise duty is a tax on certain goods or products whether imported or produced domestically. This can be imposed at any stage of production and distribution.
- Non-Tax Revenue – These include the charge on all motor vehicles entering or exiting Zambia and skills development levy on employers to fund a skills development fund.
- Domestic Financing- This covers the issuance of Treasury Government Bonds.

(c). **Identify the different types of Market Failures that leads to Government expenditure**

In an ideal situation in a country, there is economic efficiency, meaning that nobody can be made better off without someone being made worse off. In reality this is not possible, largely due to market failure that demands government intervention to improve efficiency. There are various types of market failures that require government intervention and these include:

i. Public goods- These are categorized as 'non-rival' or 'non-excludable' when used or consumed. A non-rival good is one where consumption by one person does not deny th4 other person e.g. clean air. Whereas the non-excludable good refers to one which when made available to one consumer is effectively made available to everyone e.g national defense.
ii. Externalities-This occurs when an activity results into costs and benefits that are not priced directly into the market. In this particular scenario, the price mechanism is inefficient.
iii. Merit Goods- These are similar to public goods, however, they are neither non-rival or non-excludable e.g. education and health care.
iv. Market Power-These arise as a result of insufficient competition to ensure efficient markets.

END OF SOLUTIONS