CA ZAMBIA PROGRAMME EXAMINATIONS

CA CERTIFICATE IN ACCOUNTANCY

CA 1.1: FINANCIAL ACCOUNTING

MONDAY 20 MARCH 2023

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

INSTRUCTIONS TO CANDIDATES

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

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

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

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

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

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

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

8. Present legible and tidy work.

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

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

SECTION A

Attempt all ten (10) multiple choice questions

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

1.1 Which of the following is NOT a source of income for a Not-for-Profit Organisation?

A . Donations and legacies
B. Entrance fees and subscriptions
C. Trading activities such as bar sales
D. Sports Councils Affiliation fees (2 marks)

1.2 Which of the following is the correct calculation for the cash book bank balance before adjustments?

A. Balance per Bank Statement + Unpresented Cheques +Deposits not Credited – Bank charges
B. Balance per Bank Statement - Unpresented Cheques +Deposits not Credited + Bank charges
C. Balance per Bank Statement + Unpresented Cheques -Deposits not Credited + Bank charges
D. Balance per Bank Statement + Unpresented Cheques -Deposits not Credited – Bank charges

(2 marks)

1.3 A company's trial balance totals were as follows:

Debit column	K365,800
Credit column	K371,175

A suspense account was opened for the difference.

Which of the following errors would increase the difference on the suspense account when corrected?

A. The bank overdraft balance K 7,230 has been omitted from the trial balance
B. A credit note for a supplier Mr W Kaulule for K 3,700 has been posted to the account for Mrs V Kaleule.
C. K 4,830 paid for repairs to buildings has been debited to the land and buildings asset account.
D. K6,335 paid for commission has been correctly recorded in the cash book and debited to rent account. (2 marks)

1.4 In Mbulo Company's books the receivables account has a balance of K32,000. An allowance for receivables is to be made for the first time with an amount of 3% of the receivables after deducting irrecoverable debts of K 2,000.

Which of the following is the correct double entry to create the allowance?

DEBIT	**CREDIT**
A. Allowance for Receivables	Trade Receivables account
B. Receivables expense	Allowance for Receivables
C. Receivables expense	Trade Receivables
D. Trade Receivables	Allowance for Receivables

(2 marks)

1.5 A company spent the following when acquiring a piece of equipment:

Waste processing equipment	K 552,000
Freight & Insurance	K 211,555
Commissioning expenses	K 112,200
Registration with IDC to comply with regulation	K 371,175
Delivery and installation	K 165,450
Maintenance expenses	K 105,750

What is the total amount to be reported as the initial cost of equipment?

A K 1,412,380
B K 1,517,930
C K 1,300,180
D K 929,005

(2 marks)

1.6 Which of the following is/are true about International Accounting Standards (IFRSs)?

1. IFRSs provide a basis for enforcement of a single set of global financial reporting standards
2. IFRSs provide a common basis for auditors to report on the performance and position of a company
3. IFRSs prevent national bodies from developing their own financial reporting standards

A. 1 only
B. 1 and 2 only
C. 1 and 3 only
D. All the three

(2 marks)

1.7 Which of the following statements is correct?

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

(2 marks)

1.8 Ngalamika prepared their financial statements on 31 December 2021. The inventory count taken 5 days after the year end gave a total value of K625,200.

The following transactions took place between 1 January and 5 January 2022:

Purchases of goods	K 8,450
Purchases returns	K 1,250
Sales of Goods	K 16,000

What was the value of inventory on 31 December 2021 prior to these transactions if Ngalamika makes a 40% gross profit margin on all sales?

A. K 627,600
B. K 634,800
C. K 615,600
D. K 622,800

(2 marks)

1.9 The following is an extract of information from financial statement of Lucina Plc for the year ended 31 December 2021:

Opening inventory	K 6,800
Trade accounts payables	K 5,920
Sales	K 45,000
Closing inventory	K 4,200
Cost of Sales	K 30,500

What is the Payables Payment period, calculated as a proportion of purchases, for the year to 31 December 2021?

A. 65.3 days
B. 72.6 days
C. 77.4 days
D. 81.6 days

(2 marks)

1.10 The following are entries that would be in a company's statement of cashflows:

	K
Investment income	3,407
Depreciation charges	5,473
Loan repayment	8,000
Purchase of non-current assets	13,905
Issue of shares	20,000
Dividend Paid	2,834
Disposal proceeds of Non-current assets	4,480

Which of the following pairs gives the correct amounts for *net cash from investing activities*, and *net cash from financing activities*?

A. (K 6,095) and K 13,053
B. (K17,425) and K 20,573
C. (K 12,259) and K 15,407
D. (K 6,018) and K 9,166

(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)

Red-Mercury, a limited liability Company based in Kawambwa, has the following Trial balance as at 31 December 2022.

	Debit K'000	Credit K'000
Carriage inwards	200	
Sales returns	1,000	
Cash at bank	100	
Inventory at January, 2022	2,400	
Administrative expenses	2,206	
Distribution costs	650	
Non-current assets at cost:		
Buildings	10,000	
Plant and equipment	1,400	
Motor vehicles	320	
Suspense		1,500
Accumulated depreciation:		
Buildings		4,000
Plant and equipment		480
Motor vehicles		120
Retained earnings		560
Trade receivables	876	
Purchases	5,000	
Dividend paid	200	
Sales		13,752
VAT payable		1,390
Trade payables		1,050
Share premium		500
Ordinary shares (K1)		1,000
	24,352	**24,352**

The following additional information is relevant.

(i) There are accrued carriage out wards of K146, 000 at 31 December 2022.

(ii) It was discovered credit sales invoices valued at K2,000, 000 for goods delivered to customers on 24 December 2022, had by mistake been dated 4 January 2023 and thus excluded from the sales for the year and from account receivables at the year end.

(iii) Inventory at 31 December, 2022 was valued at K1,600,000. While doing the inventory count, errors in the previous year's inventory count were discovered. The inventory brought forward at the beginning of the year should have been K2,200,000 not K2,400,000 as stated above.

(iv) Depreciation is to be provided as follows:
- Buildings at 5% straight line, charged to administrative expenses
- Plant and equipment at 20% on the reducing balance basis, charged to cost of sales.
- Motor vehicles at 25% on the reducing balance basis, charged to distribution costs.

(v) A customer has gone bankrupt owing K76,000. This debt is not expected to be recovered and an adjustment should be made.
(vi) 5% allowance for receivables is to be made.
(vii) 1 million new ordinary shares were issued at a premium of K0.50 on 1 December 2022. The proceeds have been left in a suspense account.
(viii) The charge for company tax for the year was estimated at K100,000.
(xi) The Directors proposed K123,456 ordinary dividends.

Required:

(a) Prepare Statement of profit or loss for the year ending 31 December 2022. (7 marks)
(b) Prepare Statement of Statement of Changes in Equity for the year ended 31 December 2022. (4 marks)

(c) Prepare statement of financial position as at 31 December 2022. (9 marks)
[Total: 20 Marks]

QUESTION THREE

(a) Nganga shop was opened by the owner on 1 December 2021 with capital of K200,000 deposited in the bank account. The following transactions occurred during December 2021.

1. Paid rent K30, 000 for three months in advance. Rent per month is K10,000.
2. Bought goods for sale K50,000 by cheque.
3. Bought goods for sale K45,000 on credit.
4. Sold goods on credit K60,000.
5. Paid insurance K5,000 by cheque.
6. Returned goods to the supplier for K15,000.
7. Customer paid K25,000 by cheque.
8. Goods returned by the customer K20,000.

Required:

Record the transactions above in the respective ledger accounts and prepare the trial balance as at 31 December 2021. (12 marks)

(b) In 2018 the IASB published a revised version of the 'Conceptual Framework for Financial Reporting' to update and clarify its existing guidance and fill in the gaps in it.

Required:

(i) Explain the meaning of the term 'Going Concern concept' and 'Accruals Concept' (3 marks)

(ii) Explain the meaning of qualitative characteristics 'Relevance' and 'Faithfull representation.' (3 marks)

(c) Zambia is among countries in the world that have embraced the adoption of Accruals Based International Public Sector Accounting Standards (IPSAS).

Required:

Explain two (2) advantages of adopting accruals based IPSAS to public sector organisations. (2 marks)

[Total: 20 Marks]

QUESTION FOUR

The following trial balance has been extracted from the books of Lweendo, a sole trader, as at 31 March 2022:

	Dr 'K'	Cr 'K'
Capital		60,000
Drawings	3,200	
wages	24,000	
sales		400,980
Purchases	320,520	
Trade payables		4770
Trade receivables	3360	
Machinery	14,800	
premises	100,000	
	465,880	465,750

As the trial balance totals did not agree, the difference was posted to the suspense account. The following errors were discovered:

(i) Discount received by Lweendo from his suppliers K50 was not recorded in the supplier's account (or payables account).

(ii) Lweendo had withdrawn K280 cash for private use which was debited to wages account.

(iii) The total from purchases day book K65,086 had been posted to purchases account as K64,906.

(iv) The purchase of machinery for K7,360 had been entered in the machinery account as K7,720.

Required:

(a) Show journal entries to correct the above errors. (8 marks)

(b) Write up and balance off the suspense account. (2 marks)

(c) Re-draft the corrected trial balance, taking into account errors (i) to (iv) (5 marks)

(d) Briefly describe three (3) errors that are disclosed by the trial balance. (5 marks)

[Total: 20 Marks]

QUESTION FIVE

(a) Mr. Mulenga is a dealer in spare parts who has not kept proper books of accounts. As at 31 December 2020, the following balances were available:

Description of Assets	**K**
Cash in hand	1,500
Cash at bank	15,000
Inventories	17,440
Trade receivables	8,540
Trade payables	9,520
Motor Vehicle (at valuation)	45,000
Furniture and Fittings	14,500

The following activities took place during the 2021 accounting year.

(1) His drawings amounted to K47,400. Winings from a lottery of K5,000 was put into the business.
(2) He bought extra Furniture for K2,000.
(3) The depreciation for Furniture and Fittings for the year is K2,175.
(4) As at 31 December 2021 his assets and liabilities apart from Furniture and Fittings were as follows:

	K
Cash in hand	1,000
Bank overdraft	12,000
Inventory	12,845
Trade receivables	5,750
Trade payables	5,290
Motor Vehicle to be valued at	40,000
Prepaid rent	10,000

Required:

(i) Prepare the Statement of affairs for December 2021. (3 marks)

(ii) Prepare the statement of financial position (showing the movements in retained earnings made by Mr Mulenga) as at 31 December 2021. (4 marks)

(b) **XYZ** Ltd started business on 1 January 2017, and its financial year ends on 31 December each year.

It had the following Machinery as at December 2021.

	K
• 2018 January 1, bought one machine costing	130,000
• 2019 June 30, bought one machine costing	780,000
• 2019 October 1, bought two machines costing each	1,040,000
• 2020 April 1, bought one machine costing	520,000

The company's policy is to depreciate assets at a rate of 15% per annum on a straight line basis proportionate to the date of purchase.

Required:

Prepare:

(i) The assets accounts (2018-2020); (4 marks)

(ii) Provision for depreciation account (2018-2020); and (6 marks)

(iii) Extract of the Statement of financial position for each year from 2018 to 2020. (3 marks)

[Total: 20 Marks]

QUESTION SIX

You are the accounts assistant at Chiseko Co. You recently came from a workshop for junior accountants organized by The Zambia Institute for Chartered Accountants (ZICA). One of the topics presented at the workshop was 'Bank Reconciliations'. The Finance Manager has presented to you details of balances and transactions of your company and its bankers.

The cash book balance at 31 March 2022 was K1,140,000

The bank statement had an overdrawn amount of K282,000 on 31 March 2022.

Upon investigation, the following errors were revealed:

1. A direct debit payment of K18,000 had not been recorded by Chiseko Co. in its cash book account.
2. A cheque for K30,000 received and paid into the bank by Chiseko Co. at 31 March, 2022 has now been dishonoured.
3. The bank statement showed a standing order receipt of K60,000 which Chiseko Co. had not recorded at 31 March 2022.
4. Cheques amounting to K540,000 received by Chiseko and paid into the bank on 31 March 2022 did not appear on the bank statement on same date, but on 5 april 2022.
5. Bank charges of K12,000 had not been recorded by Chiseko Co in the cash book.
6. The balance brought forward on the cash book on 1 April 2021 was overstated by K60,000. It was a debit balance.
7. Cheques drawn by Chiseko amounting to K24,000 had not been presented to its bankers by recipient suppliers at 31 March 2022.
8. One of Chiseko Co's customers made an internet banking transfer (IBT) of K6,000 which Chiseko Co had not recorded in its cash book at 31 March 2022.
9. Chiseko Co made an Internet Banking Transfer (IBT) of K900,000 to Leon Ltd its suppliers which had not yet been recorded in its cash book.

10. Customer cheques received and paid into the bank amounting to K60,000 had been entered in the cash book as K54,000.
11. A cheque paid to Mukwa Ltd for K204,000 had been entered in the cash book as K258,000.
12. Chiseko Co's bankers had wrongly debited Chiseko with cheques of K12,000 drawn by another client of the bank.

From the above details presented to you, the Finance Manager requires that you do the following:

(a) Prepare an adjusted cash book for Chiseko Co. as at 31 March 2022.

(10 marks)

(b) Prepare a Bank Reconciliation statement as at 31 March 2022 for Chiseko, starting with the Bank statement balance. (10 marks)

[Total: 20 Marks]

END OF PAPER

CA 1.1: FINANCIAL ACCOUNTING SUGGESTED SOLUTIONS

SOLUTION ONE

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

SOLUTION TWO

(a)

Red-Mercury LTD Statement of profit or loss for the year ended 31 December 2022

	K'000
Revenue (13, 752 – 1,000+ 2,000)	14,752
Cost of sales (W2)	(5,984)
Gross profit	8,768
Administrative expenses (W3)	(2,822)
Distribution costs (650 + 50 +146 (W1)	(846)
Profit before tax	5,100
Taxation	(100)
Profit for the year	**5,000**

(b)

Red-Mercury Ltd Statement of Changes in Equity for the year ended 31 December, 2022

	Share capital K'000	**Share premium K'000**	**Retained earnings K'000**	**Total K'000**
Balance at 1 January, 2022	1,000	500	560	2,060
Prior period adjustment	-	-	(200)	(200)
Restated balance	**1,000**	**500**	**360**	**1,860**
Profit for the year	-	-	5,000	5,000
Dividends paid	-	-	(200)	(200)
Share issue	1000	500	-	1,500
Balance at 31 December, 2022	**2000**	**1,000**	**5,160**	**8,160**

(c)

Red-Mercury Ltd Statement of financial position as at 31 December 2022

	K'000	K'000
Non-Current assets		
Property, plant and equipment (W4)		6,386
Current assets		
Inventory	1,600	
Trade receivables (876-76-40+2000)	2,760	
Cash	100	
		4,460
Total assets		**10,846**
Equity and liabilities		
Equity		
Share capital		2,000
Share premium		1,000
Retained earnings		5,160
		8,160
Current liabilities		
Taxation	100	
Carriage outwards	146	
VAT payable	1,390	
Trade payable	1,050	2,686
		10,846
Total equity and liabilities		

Workings

Depreciation (W1)

	K '000
Buildings (10,000 x 5%)	500
Plant (1,400-480) x 20%	184
Motor Vehicles (320-120) x 25%	50

Cost of sales (W2)

	K'000
Opening inventory	2,200
Purchases	5,000
Carriage inwards	200
Depreciation (W1)	184
Closing inventory	(1,600)
	5,984

Administrative expenses (W3)

	K'000
Per T/B	2,206
Depreciation (W1)	500
Irrecoverable debt	76
Receivable allowance (876-76) x 5%)	40
	2,822

Property, plant and equipment (W4)

	Cost	**Acc Dep**	**Dep chg**	**NBV**
	K '000	**K '000**	**K '000**	**K '000**
Buildings	10,000	4,000	500	5,500 736
Plant	1,400	480	184	
Motor vehicles	320	120	50	
	11,720	4,600	734	

SOLUTION THREE

(a) **Trial balance of Nganga as at 31 December 2021**

[12 marks maximum]

	DR K' 000	**CR K' 000**
Bank	140, 000	
Capital		200, 000
Rent	10, 000	
Prepayment	20, 000	
Purchases	95, 000	
Payables		30, 000
Sales		60, 000
Receivables	15, 000	
Insurance	5, 000	
Purchases returns		15, 000
Sales returns	20, 000	-
Total	305,000	305,000

Workings

(i) Bank

Dr	Cr
Capital 200,000	Rent Expense 10,000
Receivables 25,000	Rent prepaid 20,000
	Purchases 50,000
	Insurance 5,000
	Balance c/d 140,000
225,000	225,000

(ii) Capital

Dr	Cr
	Bank 200,000

(iii) Rent Expenses

Dr	Cr
Bank 10,000	

(iv) Prepayment

Dr	Cr
Bank 20,000	

(v) Dr Purchases Cr

Bank 50,000 Payables 45,000	Balance c/d 95,000
95,000	95,000

(vi) Dr Payables Cr

Purchases returns 15,000 Balance c/d 30,000	Purchases 45,000
45,000	45,000

(vii) Dr Sales Cr

	Receivables	60,000

(viii) Dr Receivables Cr

Sales 60,000	Bank 25,000 Sales returns 20,000 Balance c/d 15,000
60,000	60,000

(ix) Dr Insurance Cr

Bank 5,000	

(x) Dr Purchases returns Cr

	Payables 15,000

(xi) Dr Sales returns Cr

Receivables 20,000	

(b)
(i)
Going concern concept
Assumes that the business will continue in its operations for a foreseeable future (at least for the next 12 months), with no intention of liquidating it.

Accrual concept
States that transactions should be recorded when they occur and not when money is received of paid. Expenses should be matched with the related revenue in the related period.

(ii)
Relevance
Information is relevant if it can influence the decisions of users of financial statements.

Faithful representation
Information should be complete, neutral and free from material errors.

(C)

Advantages of IPSAS to public organisations
1. It promotes accountability in the use of public funds.
2. It promotes control in the use of public funds.
3. It promotes transparency in the use of public funds.

SOLUTION FOUR

a) Journal entries

		Dr 'K'	Cr 'K'
(i)	Payables control account	50	
	Suspense account		50
(ii)	Drawings	280	
	Wages		280
(iii)	Purchases	180	
	Suspense		180
(iv)	Suspense	360	
	Machinery		360

b) Suspense account

	suspense account		
Machinery	360	Balance b/f	130
		Purchases	180
		payables	50
	360		360

c) Lweendo's re-drafted trial balance as at 31 March 2022.

	Dr 'K'	Cr 'K'
capital		60,000
Drawings (3,200+280)	3,480	
Wages (24,000-280)	23,720	
Sales		400,980
Purchases (320,520+180)	320,700	
Trade payables (4,770-50)		4,720
Trade receivables	3,360	
Machinery (14,800 – 360)	14,440	
Premises	100,000	
	465,700	465,700

d) (i) part omission – An error where one part of double entry has been recorded while another has not.

For example, in a cash sale transaction, cash account is debited and no entry is made in a sales account or vice versa.

(ii) part transposition –An error where one part of double entry has been recorded the other way round in the account involved.

For example, cash purchases of K758 being correctly recorded in the cash account but recorded as K578 in the purchases account.

(iii) Single sided entry –an error where both accounts involved in double entry are either debited or credited.

For example, cash purchases being debited to both cash and purchases accounts or being credited to both cash and purchases accounts.

(iv) undercast/overcast involving one account – an error in which an account is understated or overstated as a result of arithematic error or a transaction being stated less than it should be in one account.

For example, sales account being under/over stated.

SOLUTION FIVE

(a)

i)Statement of Affairs as at December 2020

	K	Credit K
Motor vehicle	45,000	
Furniture and Fittings	14,500	
Inventory	17,440	
Receivables	8,540	
Bank balance	15,000	
Cash balance	1,500	
Payables		9,520
Capital(Balancing figure)		92,460
Total	**101,980**	**101,980**

ii)

Statement of financial position as at December 31 2021

	K	K
Assets		
Non-current		
Motor vehicle	40,000	
Furniture and Fittings	14,325	54,325
Current		
Inventory	12,845	
Receivables	5,750	
Prepaid rent	10,000	
Cash balance	1,000	29,595
Total assets		**83, 920**
Capital and Liabilities		
Capital (balancing figure W 1)	66,630	
Payables	5,290	
Bank Overdraft	12,000	
Total		**83,920**

W1. Working to show profit

Capital b/f	92,460
Drawings	(47,400)
Winnings	5,000
Profit(balancing figure)	16,570

Closing capital **66,630**

(b)

XYZ LIMITED		**(i)**	**XYZ LIMITED**	(ii)	
MACHINERY ACCOUNT			**DEPRECIATION ACCOUNT**		
	2017	**K**		**K**	**K**
01/01/2017	Balance b/f	-	Balance b/f	-	
01/01/2017	Purchases	130,000	Charge	19,500	
31/12/2017	Balance c/f	**130,000**	Balance c/f	**19,500**	
	2018				
01/01/2018	Balance b/f	130,000	Balance b/f	19,500	
30/06/2018	Purchases	780,000	Charge	156,000	
01/10/2018	Purchases	2,080,000	Balance c/f	**175,500**	
31/12/2018	Balance c/f	**2,990,000**			
	2019				
01/01/2019	Balance b/f	2,990,000	Balance b/f	175,500	
31/12/2019	Balance c/f	**2,990,000**	Charge	448,500	
			Balance c/f	**624,000**	
	2020				
01/01/2020	Balance b/f	2,990,000	Balance b/f	624,000	
01/04/2020	Purchases	520,000	Charge	507,000	
31/12/2020	Balance c/f	**3,510,000**	Balance c/f	**1,131,000**	
	2021				

01/01/2021	Balance b/f	3,510,000	Balance b/f	1,131,000	
01/03/2021	Purchases	2,340,000	Charge	819,000	
31/12/2021	Balance c/f	**5,850,000**	Balance c/f	**1,950,000**	
	2017	**2018**	**2019**	**2020**	**2021**
(i) Cost					
01/01	-	130,000	2,990,000	2,990,000	3,510,000
Additions	130,000	2,860,000	-	520,000	2,340,000
31/12/	**130,000**	**2,990,000**	**2,990,000**	**3,510,000**	**5,850,000**
(ii) Depreciation					
01/01/	-	19,500	175,500	624,000	1,131,000
Charge	19,500	156,000	448,500	507,000	819,000
31/12/	**19,500**	**175,500**	**624,000**	**1,131,000**	**1,950,000**
Carrying amount	**110,500**	**2,814,500**	**2,366,000**	**2,379,000**	**3,900,000**
Statement of financial position extract (iii)					
	2017	2018	2019	2020	2021
Machinery	**110,500**	**2,814,500**	**2,366,000**	**2,379,000**	**3,900,000**

SOLUTION SIX

a) adjusted cash book as at 31 March 2022

Details	Amount	Details	Amount
	K'000		K'000
Balance b/f	1,140	Direct debit	18
Standing order receipt	60	Bank charges	12
Internet Banking Transfer (IBT)	6	Balance b/f overstated	60
Receipts understated	6	Internet Banking Transfer (IBT)	900
Payment overstated (258-204)	54	Dishonored cheque	30
		Balance c/d	246
	1,266		**1,266**
Balance b/d	246		

b) Reconciliation statement of Chiseko Co as at 31 March 2022

	K'000
Overdraft per bank statement	(282)
Add: uncredited cheques	540
Add: bank error	12
Less: unpresented cheques	(24)
Balance per adjusted cash book	246

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA CERTIFICATE IN ACCOUNTANCY

CA 1.2: BUSINESS STATISTICS

WEDNESDAY 22 MARCH 2023

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

INSTRUCTIONS TO CANDIDATES

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

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

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

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

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

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

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

8. Present legible and tidy work.

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

10. A mathematical/standard formula book must be provided.

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 In the regression equation $y = a + bx$, the y is called

A. Continuous variable
B. Independent variable
C. Dependent variable
D. None of the above

(2 marks)

1.2 If Z is a standard Normal variable and $P(-2 < Z < k) = 0.8621$. Calculate the value of k.

A. 1.02

B. 1.29

C. 1.20

D. 0.12

(2 marks)

1.3 LXM investment specializes in event planning. The festive season has the highest number of clients served hence a survey was conducted to formulate a probability distribution of daily contact with clients. From the table below; If x is the number of contacts made per day,

X	1	2	3	4
$P(X)$	0.13	0.24	0.55	0.08

Find the expected value of the number of clients met on a particular day.

A. 2.58
B. 0.24
C. 1
D. 1.65

(2 marks)

1.4 A block contains six (6) black balls and four (4) red balls. A total of three (3) balls are picked from the box one after another, without replacing them back. The probability of getting two (2) black balls and one (1) red ball is:

A. $\frac{2}{5}$
B. $\frac{1}{6}$
C. $\frac{5}{12}$
D. $\frac{1}{2}$

(2 marks)

1.5 The number of people in a particular household is considered to be:

A. Discrete data
B Continuous data
C. Random data
D. Probability data

(2 marks)

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

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

(2 marks)

1.7 The central statistical office collects data to measure the performance of an organization. The collected data is classified as either discrete data or continuous data. The following list contains continuous data except:

A. The mean income of employees in a company
B. The average size of a family per house.
C. The units of items in an inventory
D. The cost of company service delivery per month.

(2 marks)

1.8 Given the demand for a product on each of 10 days as follows (in units) 4, 12, 8, 18, 4, 15, 10, 7, 12, 11. Find the arithmetic mean.

A. 10
B. 10.1
C. 11
D. 12

(2 marks)

1.9 The table shows the age distribution of Covid-19 patients admitted last month in Kitwe Central Hospital.

Age (in years)	5 – 14	15 – 24	25 – 34	35 – 44	45 – 54	55 – 64
Number of cases	6	11	21	23	14	5

The average age for which maximum cases occurred is:

A. 34.88

B. 35.34

C. 36.31

D. 37.31

(2 marks)

1.10 Over two (2) years, sales have been found to have a linear trend of $\hat{y} = 65 - 0.95x$, where y is the number of items sold and x represents the month. Find the forecast value $x = 5.0$.

A. 60.25
B. 69.75
C. 60.52
D. 69.57

(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) The table below shows the weekly wages in Kwacha (K) of each of the 100 factory workers.

Wage (K)	Number of Workers
$200 \leq x < 250$	10
$250 \leq x < 300$	16
$300 \leq x < 375$	40
$375 \leq x < 400$	26
$400 \leq x < 500$	8

(i) Draw a histogram to illustrate this information. (3 marks)

(ii) Calculate the mean wage. (3 marks)

(iii) Calculate the standard deviation of the wages. (4 marks)

(b) A householder keeps an annual account of four items of expenditure. The figures for the year 2010 are shown in the table below:

Item	**Expenditure (K)**
Taxes	x
Travel	1000
Light/Heat	y
Telephone	300

A pie chart was drawn to illustrate these data. Given that the angles of the sectors representing Taxes and Travel were $124°$ and $80°$ respectively, calculate

(i) the value of x and y (4 marks)

(ii) the total expenditure for the year (2 marks)

(iii) the angle of each of the remaining sectors. (4 marks)

[Total: 20 Marks]

QUESTION THREE

(a) Mr Mutono is seeking a community college instructor position. His employment depends on two conditions – whether the board approves the position and whether the hiring committee selects him. There is a 70% chance that the board approves his position. There is an 80% chance that the hiring committee will select him. There is a 90% chance that at least one of these will happen.
Let A represent the event that the board approves his position and let S be the event that the committee hires him.

Required:

(i) Find the probability that he will be hired. (5 marks)

(ii) Find the probability that he will not be hired. (3 marks)

(b) The data from a sample of 120 families in Kitwe, Kamakonde area gives the record of attendance by fathers (F) and their oldest sons (S)

	Son attended college	**Son didn't attended college**
Father attended college	28	17
Father didn't attend college	32	43

A family is chosen at random

(i) what is the probability the son attended college? (3 marks)

(ii) What is the probability the father attended college? (3 marks)

(iii) What is the probability that both the father and son attended college? (3 marks)

(iv) Are the "son attends college" and "the father attends college" independent? (3 marks)

[Total: 20 Marks]

QUESTION FOUR

(a) The mass of a growing animal is measured in grams, (g) on the same day each week for eight (8) weeks. The results are given below:

Week, x	1	2	3	4	5	6	7	8
Mass, g (y)	480	500	520	580	624	682	702	759

Required:

(i) Plot the scatter plot of this data. (3 marks)

(ii) Find the least squares regression line of mass (y) on time in weeks (x) (9 marks)

(iii) Determine the mass in grams in the 12th week? (4 marks)

(b) Given the following set of information:

8, 18, 10, 12, 9, 7, 6

Find the standard deviation (4 marks)

[Total: 20 Marks]

QUESTION FIVE

(a) A survey was conducted to assess the salaries of 30 newly recruited graduates in various organization. The table below shows the results of the survey:

25	15	26	39	47
58	50	17	30	40
51	60	70	18	32
43	53	64	80	22
36	45	55	66	12

Required:

(i) Calculate the average salary of the graduates (3 marks)

(ii) Calculate the median. (3 marks)

(iii) Calculate the lower quartile (3 marks)

(iv) Calculate the upper quartile (3 marks)

(v) Calculate the quartile deviation (2 marks)

(b) The average weight of patients enrolled to participate in a clinical trial for a new Covid-19 medicine is 55 kg with a standard deviation of 10 kg.

(i) Find the probability that the weight of selected patient be less than 65 kg. (3 marks)

(ii) Find the probability that the weight of selected patient be more than 50 kg. (3 marks)

[Total: 20 Marks]

QUESTION SIX

(a) Suppose two (2) machines produce nails which on average are 10 centimeters long. A sample of 12 nails is selected from each machine:

A	6	8	8	10	10	10	10	10	12	12	14	15
B	6	6	6	8	8	10	12	12	14	14	14	15

(i) Calculate the coefficient of variation of machine A and B (14 marks)

(ii) Which machine is better than the other? (2 marks)

(b) The length of human pregnancies from conception to birth varies accordingly to a distribution that is approximately normal with mean 226 days and standard deviation 16 days. Use the empirical rule to answer the following question:

Find the probability that the pregnancy last between 190 days and 230 days. (4 marks)

[Total: 20 Marks]

END OF PAPER

CA 1.2: BUSINESS STATISTICS SUGGESTED SOLUTIONS

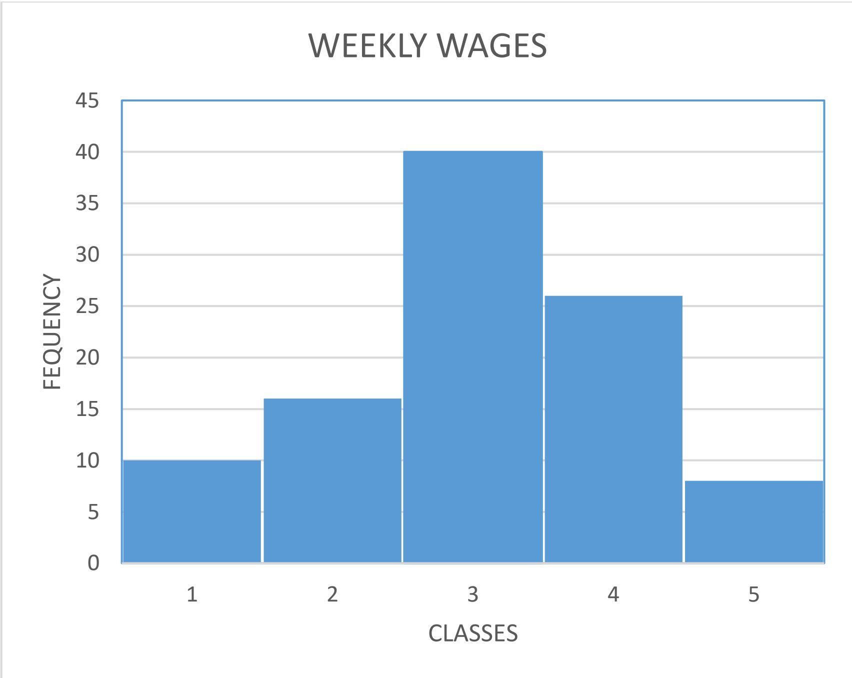
SOLUTION ONE

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

SOLUTION TWO (COMPULSORY)

(a)

Class Limit [Li - Ui]	Class Marks Xi	Frequency ni	niXi	ni(Xi-$\bar{x}$)^2
200 - 250	225	10	2250	128255.625
250 - 300	275	16	4400	64009
300 - 375	337.5	40	13500	22.5
375 - 400	387.5	26	10075	63064.625
400 - 500	450	8	3600	99904.5
Totals		**100**	**33825**	**355256.25**



Mean:

$$\bar{X} = \frac{1}{\sum f}\sum f_i x_i = \frac{33825}{100} = 338.25$$

Standard deviation:

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

$$\boldsymbol{s = \sqrt{\frac{355256.25}{100 - 1}} = 59.9}$$

(b) Using direct proportions:

If 1000 $\rightarrow$ $80°$

x $\rightarrow$ $124°$

$$80x = 124000$$

$$x = K1550$$

$$\frac{1000}{1000 + 1550 + 300 + y} \times 360° = 80°$$

$$228000 + 80y = 360000$$

$$y = K1650$$

Total Expenditure: $1000 + 1550 + 300 + 1650 = K4500$

Angle for Light/Heat:

$$\frac{1650}{4500} \times 360° = 132°$$

Angle for Telephone:

$$\frac{300}{4500} \times 360° = 24°$$

SOLUTION THREE

(a)

(i) Let A be the even the board approves the position and S the event correct selects him.

Then $P(A) = 0.8$, $P(S) = 0.7$, $P(A \cup S) = 0.90$

Applying the Addition Rule,

$$P(A \cup S) = P(A) + P(S) - P(A \cap S)$$

Since $A \cap S$ implies the board approves and the hiring committee selects him, therefore we solve for $P(A \cap S)$

$$0.90 = 0.8 + 0.7 - P(A \cap S)$$

Hence, $P(A \cap S) = 0.6$.

(ii) Probability that one is not hired is equal to $P(\overline{A \cap S}) = 1 - P(A \cap S)$

$$= 1 - 0.6 = 0.4$$

(b)

(i) $P(S) = \frac{60}{120} = 0.5$

(ii) $P(F) = \frac{45}{120} = 0.375$

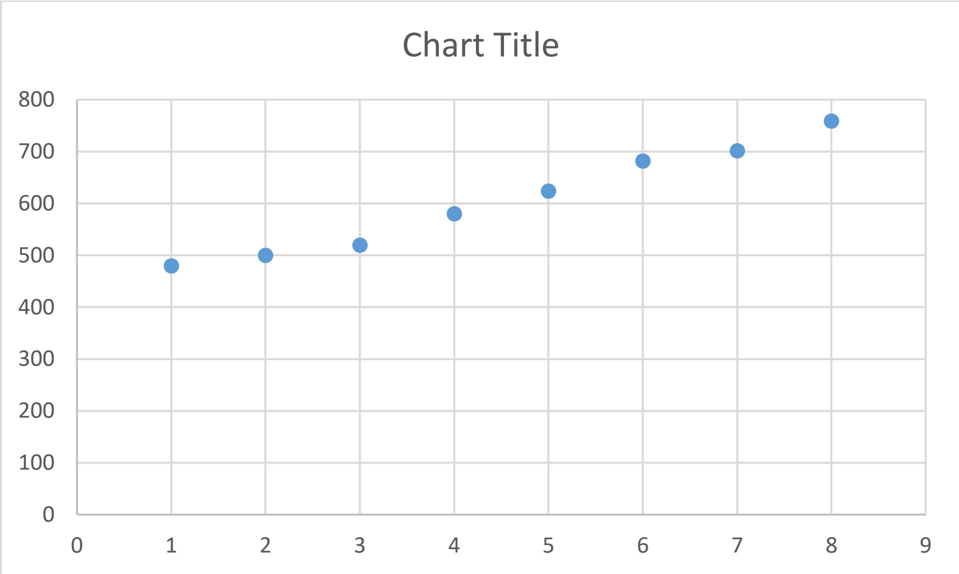
(iii) $P(S \cap F) = \frac{28}{120} \approx 0.2333$

(iv) since $P(S \cap F) = \frac{28}{120} \approx 0.2333 \neq P(S) \times P(F) = \frac{60}{120} \times \frac{45}{120} = \frac{45}{120} = 0.1875$

The events "son attends college "and "father attends college" are not independent that is they are dependent.

SOLUTION FOUR

(a) **(I) scatter plot**



(ii) Summary table

x	y	x^2	xy
1	480	1	480
2	500	4	1000
3	520	9	1560
4	580	16	2320
5	624	25	3120
6	682	36	4092
7	702	49	4914
8	759	64	6072
$\sum x = 36$	$\sum y = 4847$	$\sum x^2 = 204$	$\sum xy = 23558$

$$b = \frac{\sum xy - \frac{\sum x \sum y}{n}}{\sum x^2 - \frac{(\sum x)^2}{n}}$$

$$b = \frac{23558 - \frac{(36)(4047)}{8}}{204 - \frac{(36)^2}{8}} = \frac{1746.5}{42} = 41.583$$

$a = \bar{y} - b\bar{x}$

$= \frac{4847}{8} — (41.583)\left(\frac{36}{8}\right)$

≈ 418.75

Therefore the required answer is $\hat{y} = 418.75 + 41.583x$

Standard deviation=

$$\sqrt{\frac{\sum(x-\bar{x})^2}{n}}$$

Mean=(8+18+10+12+9+7+6)/7 = 10

$$SD = \sqrt{\frac{(8-10)^2+(18-10)^2+(10-10)^2+(12-10)^2+(9-10)^2+(7-10)^2+(6-10)^2}{7-1}}$$

$$= \sqrt{\frac{4+64+0+4+1+9+16}{6}}$$

$$= \mathbf{4.08}$$

SOLUTION FIVE

(a)

i) mean $= \frac{1}{n}\sum x = \frac{1}{25}(12 + 15 + \cdots + 80) = 42.16$

ii) the median

12, 15, 17, 18, 22, 25, 26, 30, 32, 36, 39, 40, 43, 45, 47, 50, 51, 53, 55, 58, 60, 64, 66, 70, 80

Median = 13th positioned value which 43

iii).. the lower quartile ($Q_1 = L_K = \frac{K}{100}(n+1)$

$$= \frac{25}{100}(25+1) = \frac{6th+7th}{2}$$

$$= 25.5$$

Iv) the upper quartile ($Q_3 = L_K = \frac{K}{100}(n+1)$

$$= \frac{75}{100}(25+1) = \frac{19th+20th}{2}$$

$$= \mathbf{56.5}$$

v) $\boldsymbol{quartile\ deviation} = \frac{\boldsymbol{upper\ quartile - lower\ quartile}}{\mathbf{2}}$

$$= \frac{\mathbf{56.5 - 25.5}}{\mathbf{2}}$$

$$= \mathbf{15.5}$$

(b) (i) $P(X < 65) = P(Z < \frac{X-\mu}{\sigma})$

$$= P\left(Z < \frac{65-55}{10}\right)$$

$$= P(Z < 1) = 0.8413$$

(ii) $P(X > 50) = P(Z > \frac{X-\mu}{\sigma})$

$$= P\left(Z > \frac{50-55}{10}\right)$$

$$= P(Z > 0.5) = 0.3085$$

SOLUTION SIX

(a)

Machine A

Sample mean $\bar{x} = \frac{125}{12} \approx 10.42$

Sample Standard deviation $S = \sqrt{\frac{1373 - \frac{(125)^2}{12}}{11}} \approx \sqrt{6.447} = 2.54$

Coefficient of variation $CV_A = \frac{S}{\bar{x}} \times 100 = \frac{2.54}{10.42} \times 100 = 24.37\%$

Machine B

Sample mean $\bar{x} = \frac{125}{12} \approx 10.42$

Sample Standard deviation $S = \sqrt{\frac{1437 - \frac{(125)^2}{12}}{11}} \approx \sqrt{12.265} = 3.50$

Coefficient of variation $CV_A = \frac{S}{\bar{x}} \times 100 = \frac{3.50}{10.42} \times 100 = 33.59\%$

Machine A is better than Machine B, since it has a smaller coefficient of 24.37% compared to 33.59%.

(b)

$$P(190 < X < 230) = P(\frac{X-\mu}{\sigma} < Z < \frac{X-\mu}{\sigma})$$

$$P(\frac{190-226}{16} < Z < \frac{230-226}{16})$$

$$\boldsymbol{P(-2.25 < Z < 0.25) = 1 - 0.0122 - 0.4013 = 0.5865}$$

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA CERTIFICATE IN ACCOUNTANCY

CA 1.3: BUSINESS ECONOMICS

TUESDAY 21 MARCH 2023

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

INSTRUCTIONS TO CANDIDATES

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

2. This paper is divided into TWO (2) sections:
   Section A: 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 industries most closely approximates the perfectly competitive model?

A. Automobiles
B. Banking
C. Education
D. Maize farming

(2 marks)

1.2 If the percentage increase in the quantity demanded for a good is less than the percentage fall in its price, the coefficient of the price elasticity of demand is……..

A. Greater than 1
B. Equal to 1
C. Smaller than 1
D. Zero

(2 marks)

1.3 ……………………unemployment occurs in specific industries due to long term changes in the conditions of an industry

A. seasonal
B. Structural
C. Cyclical
D. Frictional

(2 marks)

1.4 Which of the following are public goods?

(i) Defense
(ii) Health care
(iii) Education
(iv) Street lighting

A. (ii) and (iii)
B. (i), (ii), and (iii)
C. (i), and (iv)
D. All of them

(2 marks)

1.5 When a bank provides short term facilities to savers and long term facilities to borrowers, it is performing……………………………………

A. Maturity transformation
B. Risk transformation

C. Liquidity transformation
D. Interest transformation

(2 marks)

1.6 A favourable movement in the country's terms of trade means that……..

A. The balance of trade has improved
B. The volume of exports has risen relative to the volume of imports
C. The prices of exports have risen relative to the prices of imports
D. The revenue for exports has risen relative to the revenue from imports

(2 marks)

1.7 How does the demand curve respond to an increase in demand?

A. The curve shifts to the left
B. The curve shifts to the right
C. There is movement along a demand curve
D. There is no change in the curve

(2 marks)

1.8 Miles tracking firm produces timber on the highlands of Ndola which has been polluting a local river. How can Zambia Environment Agency as a regulator through the Zambia government control such externality?

A. Decrease taxes for firms
B. Increase taxes for firms
C. Subsidize the firm
D. Close the firm

(2 marks)

1.9 Absolute advantage refers to……………………………….

A. A country having lower opportunity cost than its trading partner
B. A country having higher production cost than the trading partner
C. A country having lower production cost than its trading partner
D. Two countries determining that they will benefit from trade

(2 marks)

1.10 Which one of the following would cause the demand curve for a good to shift to the right or outwards from the origin?

A. A falling the price of a good
B. An increase in the demand for a good

C. An increase in the price of a complementary good
D. The imposition of a minimum price

(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).

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

Whether it is a flower seller at a local farmer's market, a memory chip manufacturer or a huge corporation like Shoprite Checkers, every firm is in business to make profits. In a competitive market, firms are price-takers. The main decision such a firm needs to make is how much to produce. Because profits are the difference between the firm's revenues and its cost, it is imperative that the business entity understands correctly what constitutes a firm's costs structure. This is critical because Economists and Accountants look at costs differently which ultimately affects the profit.

Required:

(a) Without graphing:

(i) Explain how profit maximising output is determined using the Marginal Revenue (MR) and Marginal Cost (MC) approach (4 marks)

(ii) Explain how profit-maximising output is determined using the Total revenue (TR) and Total Cost (TC) curves (4 marks)

(iii) Explain why the firm's marginal cost curve above the minimum average cost curve coincides with the firm's supply curve (4 marks)

(b) Joe is a skilled Electrician working for ZESCO, a job that pays him K50,000 per annum, but he is considering quitting to start his own business. He shares this idea over with an Accountant, who helps him draw up costs and revenues:

Predicted annual costs (K'000)		**Predicted revenue(K'000)**
Basic wage	2,000	75,000
Rent of office	12,000	
Rent of equipment	18,000	
Utilities	2,000	
Miscellaneous	5,000	

(i) From the economist's point of view, is the Accountant's list of costs complete? Explain (2 marks)

(ii) From an Economist's point of view, what is Joe's expected profit if he quitted the job at ZESCO (6 marks)

[Total: 20 Marks]

QUESTION THREE

The iPhone 8GB, an internet and multimedia smart phone created by Apple, was launched in the US market in June 2007. The launch price was $599. In early September of the same year Apple announced a reduction in the price of the iPhone 8GB of 33 per cent, from $599 to $399. Why such a big reduction in the price a mere two months after the launch? One possibility is that Apple overestimated its demand for the iPhone and not many customers were willing to buy at that price. In this case, a price cut may be justified. This possibility, however, seems implausible. Demand for iPhones was high; customers were queuing outside Apple stores for hours in order to buy one. Maybe the price cut was due to the fact that Apple discovered that the cost of making the iPhone was lower than expected. This possibility also seems quite implausible. According to the market research, the cost of making the iPhone 8GB was $280.83 when the iPhone was launched. This was the cost when the price was $599 and also when the price was reduced. A more plausible explanation is related to the idea of the elasticity of demand. The iPhone can be viewed as a luxury good with few direct substitutes. **(David Berg et al., 2011)**

Required:

(a) With the use of diagrams, explain What happens to the equilibrium price and quantity traded for iPhones

(i) if the price of iPhone Apps (complimentary services) reduces (5 marks)

(ii) if the is a new and strong competitor Phone model X preferred by consumers (5 marks)

(b) Outline any two (2) factors that may determine the demand for smart phones (4 marks)

(c) Calculate the elasticities for the scenarios below:

(i) A price increase from K40.00 to K45, leads to a decrease in quantity demanded from 50 units to 43 units. (3 marks)

(ii) A 20% change in price leads to a 10% change in quantity demanded. (3 marks)

[Total: 20 Marks]

QUESTION FOUR

Income is the key determinant of household consumption or spending plans as described by the consumption function. The consumption function shows aggregate consumption demand at each level of aggregate income. The multiplier tells us how much output changes after a shift in aggregate demand. The multiplier exceeds 1 because a change in autonomous demand sets off further changes in consumption demand. The size of the multiplier depends on the marginal propensity to consume. The initial effect of a unit fall in investment demand is to cut output and income by a unit. If the MPC is large, this fall in income leads to a large fall in consumption and the multiplier is big. When the Marginal Propensity to Consume (MPC) is small, a given change in investment demand and output induces small changes in consumption demand and the multiplier is small.

(a) Consider the following consumption function, given that government spending (G) is 800, investment (I) is 1,000 and taxes (T) are 100

$$C = 480 + 0.8(Y\text{-}T)$$

(i) Using the above figures derive the Aggregate Expenditure function. (3 marks)

(ii) Determine the equilibrium level of output. (3 marks)

(iii) If investment increases by 200, calculate the new equilibrium. (2 mark)

(iv) Explain the multiplier theory of investment. (4 marks)

(b) Explain the determinants of consumption. (8 marks)

[Total: 20 Marks]

QUESTION FIVE

In the world history, Cowrie – a mollusk shell found mainly off Maldives Island in the Indian Ocean was used for money over the broadest geographical area and the longest period of time. Cowrie served as money as early as 700BC in China. By 1500s, they were in widespread use across India and Africa. For several centuries after that, cowries were used in markets

Cowries worked as money for various reasons. Firstly, there were extremely durable, lasting a century or more. Secondly, parties could use cowries either by counting shells of a certain size or for large purchases, by measuring the weight or volume of the total shells to be exchanged. Thirdly, it was impossible to counterfeit a cowrie shell, as could be done with gold or silver coins. Finally, in the heyday of cowrie money, from 1500s into the 1800s, the collection of cowries was highly controlled. This ensured that the supply of cowries was allowed to grow quickly to serve the needs of commerce. Money throughout ages has taken many different forms and continues to evolve even today where there is a hype for Bitcoin!

Required:

(a) Define commodity money (3 marks)

(b) Outline any four (4) characteristics of money (4 marks)

(c) What is meant by counterfeit money? (3 marks)

(d) Explain how the Bank of Zambia can use monetary policy to ensure that there is no excessive money in circulation which may cause inflation. (5 marks)

(e) Explain what is meant by 'expansionary monetary policy' (5 marks)

[Total: 20 Marks]

QUESTION SIX

International trade is the exchange of goods and services between a country and the rest of the world. This type of trade gives rise to a world economy, in which prices, or supply and demand, affect and are affected by global events. International trade arises because countries differ in their demand for goods and in their ability to produce them. There are several bases on which countries trade with each other, and one such basis is comparative advantage. Even though international trade has many benefits, most governments are against free international trade. International trade also has implications on a county's Balance of Payment status. The value of exports versus the value of imports may lead to either a deficit or a surplus of the balance of trade. Governments, therefore try to put measures in place that can help correct balance of trade deficits.

Required:

(a) Describe the theory of comparative advantage as a basis for international trade. (6 marks)

(b) Give any four (4) reasons why some countries may be against free international trade. (4 marks)

(c) Outline any three (3) factors that may lead to a balance of trade deficit. (6 marks)

(d) Explain any two (2) measures the Government can put in place to correct a Balance of trade deficit. (4 marks)

[Total: 20 Marks]

END OF PAPER

CA1.3 BUSINESS ECONOMICS SUGGESTED SOLUTIONS

SOLUTION ONE

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

SOLUTION TWO

(a) Profit maximisation approaches:

i) Using the Marginal Revenue (MR) and Marginal Cost (MC) approach, a firm maximises profits by producing at a point where MR = MC. IF MR< MC, the firm is advised to contract or reduce the scale of its operations. Similarly, when MR > MC, the firm would be advised to expand its operation until MR = MC

ii) Using the total Revenue (TR) and Total cost (TC) approach, when TR exceeds TC, the firm is making profits at that level of output. Profits, the difference between revenues and costs, are measured by the distance between the two curves. Profit is maximised where the distance between the two curves is the greatest.

iii) The firm's marginal cost curve above the minimum average total cost curve coincides with its supply curve because below this point the firm would shut-down its operation. This is so because the firm will be failing to cover its variable costs as the firm cannot supply below the AVC curve.

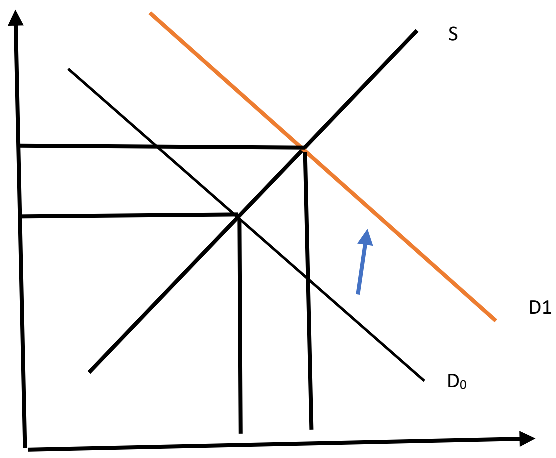
(b) i) No. Implicit costs are not included in the list

ii) Economic Profits is calculated as follows:

	K	K
Total sales revenue		75, 000
Less Explicit Costs:		
Basic wage	2,000	
Rent of space	12,000	
Rent of equipment	18,000	
Utilities	2,000	
Miscellaneous	5,000	
Total explicit costs		(39,000)
Accounting profit		36,000
Less implicit costs (foregone salary)		(50,000)
Economic loss		**(14,000)**

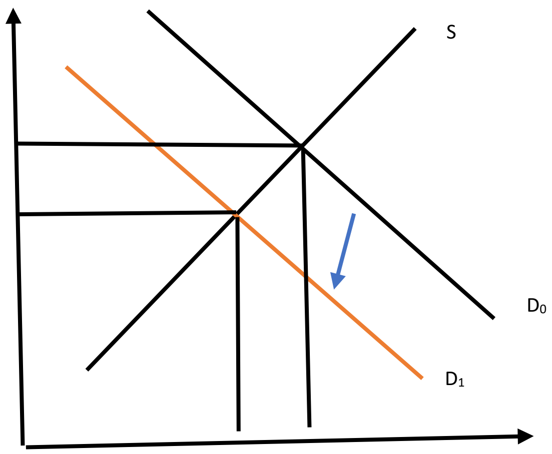
SOLUTION THREE

(a) (i)



iPhone Apps are complimentary services to an iPhone, therefore, if the price of iPhone Apps reduces, there will be a shift in the demand curve for iPhones to the right. There will be an increase in the demand for iPhones. This will lead to an increase in the equilibrium price and quantity.

(ii)



If a strong competitor invents model X preferred by consumers, it will cause a reduction in the demand for iPhones. This reduction will lead to a shift of the demand curve to the left, and the equilibrium price and quantity will decrease.

(iii) The following are the main influences on demand:

- Household income: An increase in income leads to an increase in the demand for goods and services, known as 'normal' goods. These are expensive, luxurious products. Demand falls when there is a reduction in income, indicating a positive relationship between household income and most goods and services.

- For substitute goods: a change in the price of one good causes a change in the demand for the other good. Suppose there is an increase in the price of Model X phone, the demand for iPhone is likely to increase as consumers will switch to the iphone, which will appear relatively cheaper.

- The other goods can also be complementary goods or those goods that are jointly demanded such as Apps, phone covers, headsets etc….
- Price expectations: Expectations of future price increases in a commodity results in an increase in demand, the idea is to purchase a lot of goods at the current 'low' price and 'beat' future price increases.

(b) Elasticity

(i) **Ped =** $\frac{Q2-Q1}{Q1}\times\frac{P1}{P2-P1}$

= $\frac{43-50}{50}\times\frac{40}{45-40}$

= -1.12 0r 1.12

(ii) **Ped =** $\frac{10}{20}$

= $\frac{2}{4}$

= 0.5

SOLUTION FOUR

(a) **Y = C + I +G**

(i) **Y= 480+ 0.8(Y-100) + 1000 + 800**

(ii) Y= 480 + 1000 + 800 + 0.8(Y-100)

Y = 2200 + 0.8Y

Y = 11,000

(iii) **If Investment increases by 200**

Y = 480 + 1200 + 800 +0.8Y – 80

= 2400 + 0.8Y

Y =12,000

(iv) **The Investment multiplier**

- The term investment multiplier refers to the concept that any increase in public or private investment spending has a more than proportionate positive impact on aggregate income and the general economy.
- The investment multiplier tries to determine the economic impact of public or private investment. For instance, extra government spending on roads can increase the income of construction works, as well as the income of materials suppliers. These people may spend the extra income in the retail, consumer goods, or service industries, boosting the income of the workers in those sectors.

(b) **Determinants of consumption**

- Disposable income: Disposable income is the most important determinant of consumption expenditure. Without income, there is no money to buy goods and services.
- Future income expectations: When consumers are optimistic about their income and employment prospects, they will tend to shop. They sure can still make money. Conversely, when the prospect of income worsens, they will delay the expenditure of some goods. They will save more in preparation for a worse situation.
- Inflation expectations: High inflation erodes consumer purchasing power. Money becomes worthless. With the same nominal cash and goods, they get a smaller quantity.
- Interest rates and credit availability: For households, interest is the cost of borrowing money. The higher the interest rate, the more expensive it will be. Hence, they will think twice about applying for new loans when interest rates rise.

SOLUTION FIVE

(a) Commodity money is anything that serves as money while having market value in other uses

(b) The following are the qualities of good money:
- Divisible: It must be capable of reflecting a range of values
- Portable: It must be easily carried around
- Durable: It must not die quickly through rot or rust
- Controllable: It must easily be controlled by an acceptable authority
- Uniformity: It must have the same value regardless of its condition
- Acceptable: It must be generally accepted by people to complete business transactions

(c) Counterfeit money is fake money not printed or minted by the legally authorised institutions. It is therefore not a legal tender.

(d) Monetary policy is the Central bank's use of Open Market Operations, changes in discount rate, and changes in required reserve ratio to change money supply. To reduce money supply, the Central Bank would sell government securities on the open market, increase the discount rate and raise the required reserve ratio. These measures will reduce money in circulation hence inflation.

(e) Expansionary monetary policy is a policy used to increase or expand money supply in the economy. It operates through the money supply and credits creation process and would include open market operations and reduction in the resources that commercial banks need to hold with the Central Bank.

SOLUTION SIX

(a) **The Law of Comparative Advantage**

This law states that countries specialise in producing and exporting the goods that they produce at a lower opportunity cost than other countries.
Specialization and trade should occur according to the relative opportunity costs of production in each country, measured in terms of the alternative production given up to produce a tradable good.

(b) The following arguments are given against free trade policy.

- **Unrealistic Policy:** Free trade policy is based on the assumption of laissez-faire or government non-intervention. Its success also requires the pre-condition of perfect competition. However, such conditions are unrealistic and do not exist in the actual world.
- **Non-Cooperation of Countries:** Free trade policy works smoothly if all the countries cooperate with each other and follow this policy. If some countries decide to gain more by imposing import restrictions, the system of free trade cannot work.
- **Economic Dependence:** Free trade increases the economic dependence on other countries for certain essential products such as food, raw materials, etc. Such dependence proves harmful particularly during wartime.
- **Political Slavery:** Free trade leads to economic dependence and economic dependence leads to political slavery. For political freedom, economic independence is necessary. This requires abandonment of free trade.
- **Unbalanced Development:** Free trade and the resultant international specialisation lead to unbalanced development of national economy. Under this system, only those sectors are developed in which the country has a comparative advantage. Other sectors remain undeveloped. This results in lop-sided development.
- **Dumping:** Free trade may lead to cutthroat competition and dumping. Under dumping, goods arc sold at very cheap rates and even below their cost of production in order to capture the foreign markets.
- **Harmful Products:** Under free trade, injurious and harmful products may be produced and traded. Trade restrictions are necessary to check the import of such products.

(c) **causes of Trade deficit**

- **Lower Tariffs / Trade Barriers:** When government signs a new trade deal and reduces tariffs, it creates competition. Foreign imports become cheaper and much more competitive. As a result, consumers may switch to imported alternatives. They may be both cheaper and of higher quality.
- **Low Productivity:** When a nation experiences low productivity growth in relation to others, it can find itself become less competitive. As other nations become more productive, they are able to produce goods at a lower cost.
- **Strong Currency:** A strong currency is usually a sign of an equally strong economy. Often, we will see floods of foreign money come into what are referred to as 'safe havens'.
- **Reliance on Specific Exports:** Some nations rely heavily on a limited number of specific exports. For instance, Russia, Norway, and Saudi Arabia all rely heavily on oil. So when the price of oil declines, it can have a negative impact on their trade balance.

(d) **Correction of BoP deficit**

Deflation means falling prices. Deflation has been used as a measure to correct deficit disequilibrium. A country faces deficit when its imports exceeds exports.

Deflation is brought through monetary measures like bank rate policy, open market operations, etc or through fiscal measures like higher taxation, reduction in public expenditure, etc. Deflation would make our items cheaper in foreign market resulting a rise in our exports. At the same time the demands for imports fall due to higher taxation and reduced income. This would built a favourable atmosphere in the balance of payment position. However Deflation can be successful when the exchange rate remains fixed.

Exchange Control

It is an extreme step taken by the monetary authority to enjoy complete control over the exchange dealings. Under such a measure, the central bank directs all exporters to surrender their foreign exchange to the central authority. Thus it leads to concentration of exchange reserves in the hands of central authority. At the same time, the supply of foreign exchange is restricted only for essential goods. It can only help controlling situation from turning worse. In short it is only a temporary measure and not permanent remedy.

END OF SOLUTONS

Zambia Institute of Chartered Accountants

CA ZAMBIA PROGRAMME EXAMINATIONS

KNOWLEDGE LEVEL

CA 1.4: COMMERCIAL AND CORPORATE LAW

FRIDAY 24 MARCH 2023

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

INSTRUCTIONS TO CANDIDATES

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

2. This paper is divided into TWO sections:
   Section A: 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 ………… occurs where the shareholders pass a resolution to wind up the company and appoint a liquidator.

A. Creditors' voluntary winding up

B. Members' voluntary winding up

C. Declaration of solvency (statutory declaration)

D. Compulsory winding up

(2 marks)

1.2 Which of the following represents a set of the branches of government

A. Legislature, Police and Judiciary

B. Legislature, Executive and Permanent Secretaries

C. Legislature, Civil Service and Judiciary

D. Legislature, Executive and Judiciary

(2 marks)

1.3 Which of the following is not a key element of a contract?

A. Invitation to treat

B. Offer

C. Consideration

D. Intention to create legal relations

(2 marks)

1.4 …………. is where ownership of the goods is transferred immediately from the seller to the buyer.

A. A conditional sale

B. An agreement to sale

C. A contract of sale

D. Hire purchase (2 marks)

1.5 Which dismissal would an employee who is fired for gross misconduct have?

A. Summary dismissal

B. Wrongful dismissal

C. Constructive dismissal

D. Unfair Dismissal

(2 marks)

1.6 Which of the following is **not** a duty of an agent?

A. Duty to obey Lawful instructions

B. Duty to exercise reasonable care

C. Duty to delegate

D. Duty to work for the best interest of the principal

1.7 In a company that has both ordinary and preference shareholders. A meeting by preference shareholders only is known as …………..

A. Annual General meeting
B. Class meeting
C. Extra ordinary meeting
D. Shareholders meeting

(2 marks)

1.8 A retired partner who allows his name to remain on the partnership's letterheads becomes a ...

A. Partner by estoppel

B. Dormant partner

C. General partner

D. Salaried partner

(2 marks)

1.9 Private limited companies can be classified into the following categories…….

A. Private companies limited by shares, private companies limited by guarantee and cooperatives.
B. Private companies limited by guarantee, limited partnerships and unlimited companies.
C. Private unlimited companies, private companies limited by guarantee and private companies limited by shares.
D. Private limited partnerships, cooperatives and public limited companies.

(2 marks)

1.10 The type of capital which a company can only call up when on liquidation is known as:

A. Nominal capital

B. Reserve capital

C. Unissued capital

D. Unpaid capital

(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)

(a) Making reference to the Constitution of Zambia, give the jurisdiction of the Zambian Courts. (10 marks)

(b) Explain what the position of the law is on transfer of title by a seller without title. (2 marks)

(c) Explain how a warranty can be distinguished from a guarantee. (4 marks)

(d) Discuss how a hire purchase differs from a credit sale. (4 marks)

[Total: 20 Marks]

<u>QUESTION THREE</u>

Mwape, Mubita and Mutinta formed a university they called 'The University of Commercial Science' in 2010. The three are also directors of the said university. The university has grown exponentially posting huge profits since inception and is now a listed company on the Lusaka Stock Exchange. Last year it signed a contract for the supply of ZICA, ACCA and CIMA text books with iBrand Publishers Ltd, a company based in Zimbabwe. The University also appointed iBrand Publishers as their sole agent for the purpose of recruiting students in Zimbabwe and facilitating their travel to Zambia for school. iBrand has not delivered any books despite having been paid in full over nine (9) months ago. At its recent sitting, the university's management meeting ended abruptly after Mubita started accusing Mutinta and Mwape of money laundering over their slow action on iBrand Ltd.

(a) Mwape has come to you for help. He wants to sue iBrand Publishers Ltd for specific performance and damages, and has come to you for help in this regard.

Explain the two terms to him. (8 marks)

(b) Explain how the agency relationship of recruiting students between The University and iBrand can be terminated by operation of law and by 'end of a time period'. (6 marks)

(c) Mutinta and Mwape are shocked of Mubita's accusations and they need your urgent help. Explain to them the three phases of money laundering. (6 marks)

[Total: 20 Marks]

QUESTION FOUR

(a) In company law it is true that a contract can be entered into on behalf of someone who has not yet come into existence for as long they are construed to be artificial persons.

(i) Making reference to the above statement, explain the type of contract being talked about. (10 marks)

(ii) Discuss the position of the law on the contract identified above. (5 marks)

(b) Explain what the articles of association are. (5 marks)

[Total 20 Marks]

QUESTION FIVE

Chocho has just joined the Beula Limited as an intern under the Human resources department. He is tasked by his boss to deal with the following issues; Unfair dismissal of Jabulani on 2 September 2021, wrongful dismissal of James the security guard and a resignation notice by Julu the media man not on a written contract.

Required:

(a) Explain to him the intricacies of each issue he is dealing with. (9 marks)

(b) Distinguish implied agency from express agency (11 marks)

[Total 20 Marks]

QUESTION SIX

(a) Explain incorporation of a company (4 marks)

(b) Explain the distinction between a partnership and an incorporated company. (4 marks)

(c) Describe the essential elements of agency by necessity. (12 marks)

[Total: 20 Marks]

END OF PAPER

CA 1.4: COMMERCIAL AND CORPORATE LAW SUGGESTED SOLUTIONS

SOLUTION ONE

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

SOLUTION TWO

-

(a) In descending order the hierarchy of the courts in Zambian according to part VIII of the constitution is as follows:

(i) Constitutional Court and Supreme Court - The Supreme Court is the highest appellate court in the country. It has appellate jurisdiction meaning it hears matters on appeal from the court of appeal. This court does not have original jurisdiction meaning no matter may be originated in this court. Before the 2016 constitution came into effect, the Supreme Court was the highest court in the country. The constitutional court stands at the level with the Supreme Court. This court is both an appellate court and a court of first instance. Article 128 of the constitution confers exclusive jurisdiction on the constitutional court to hear all matters pertaining to the interpretation of the constitution. It further confers jurisdiction on the constitutional court to hear presidential election petitions and parliamentary election petitions appeals. The constitutional court and Supreme Court stand *pari pasu* in the Zambian court hierarchy.

(ii) Court of Appeal – This court is the second highest appellate court in Zambia. Like the Supreme Court, the court does not have original jurisdiction but appellate jurisdiction in both criminal and civil matters.

(iii) High Court – this court is the court of first instance in all matters of a criminal and civil nature. The court once exercised jurisdiction on matters relating to the bill of rights before the constitutional court was established. The high court hears several matters under its different divisions.

(iv) Subordinate Court (magistrate court) – this is the second lowest in ranking of the courts in the hierarchy. The subordinate court hears most criminal cases as a court of first instance. It is presided by magistrates of different classes.

(v) Local Courts - these are courts that hear customary related matters. They are the lowest in the ranking and they are not courts of record.

(b) The rule is that a person who does not any right to property cannot transfer title to that property. Hence, a person who does not own property that they sale may not transfer title of the property to the buyer. Section 21 of the Sale of Goods Act 1893 makes this provision.

(c) Warranties and guarantees are terms found commonly found in commercial transactions. Though sounding the same, they are in fact different. A warranty is an assurance or indeed a guarantee that when a product sold by the seller fails to work as expected within a certain expected timeframe, or where it is damaged due to no fault of the buyer, the buyer will be entitled to a repair at the cost of the seller or manufacturer. Conversely, a guarantee is an assurance that a product sold shall not be damaged for a timeframe that would be given by the manufacturer. In essence therefore it would be said that a warranty is a guarantee that if a product breaks within a specific period, it will be repaired at the cost of the manufacturer whereas a guarantee is an assurance that for a specific period, the goods bought would not break.

(d) A hire purchase agreement is an agreement where the purchaser of goods makes a payment towards the purchase price of the goods purchased and they take possession of the purchased goods. They do not however have ownership of the purchased goods and may not sale or transfer ownership in the goods sold. In the event of a default in the payments on the balance, the seller is entitled to repossession of the sold goods not the demand payment of the balance money. A credit sale on the other hand is a sale where the buyer acquires the rights to the sold goods and can do with them as they desire including selling them. Where there is a breach in a credit sale, the seller demands for the balance of the purchase price and not the goods sold.

SOLUTION THREE

(a) The two remedies he wants to sue for are Specific performance and Damages. He must be informed that since the university is a company, it is the company to sue and not himself as a shareholder/director. He has to sue in the name of the company.

Damages – He can sue for monetary compensation for the loss suffered due to non-delivery of the books on time. Damages simply means financial compensation awarded to the injured party by the court against the wrong doer. There are different types of damages: Liquidated damages (these are damages agreed upon by the parties), Unliquidated damages (not agreed upon by the parties, but courts will order for them to compensate the injured party for the loss suffered), Nominal damages (small amounts awarded where there is no real damage suffered by the plaintiff.

Specific Performance – This is an order by the court that the party in breach carries out his contractual obligations. The order, like all other remedies are at the discretion of the court. Thus The University can sue can sue for specific performance, i.e. having iBrand perform their part of the contract by supplying The University with the ordered books.

(b) The agency relationship between iBrand and The University can be terminated by *operation of law* and *end of time period* as follows:

(i) *Operation of law*:- This is the termination of an agency relationship where the performance of the contract becomes illegal, death or liquidation of either party, etc which make the performance of the contract illegal.
(ii) *End of a time period*:-This is the termination of an agency relationship due to the end of the duration or time period for which it was fixed to run. Thus once the time fixed for the agency relationship elapses or task for which it was formed is achieved, the agency is terminated.

(c) *Money laundering* is a financial crime whose purpose is to conceal the origins of the proceeds of criminal activity. The three phases of money laundering are as follows:

(i) *Placement*:- This is the initial disposal of the proceeds of the illegal activity into apparently legitimate business activity or property e.g. banking small amounts in different banks to avoid suspicion.
(ii) *Layering*:- This is the process of transferring of monies from business to business or place to place to conceal the original source e.g. under or overvaluing the invoices to disguise the movement of money.
(iii) *Integration*:- This is the last phase where, having layered the money, it now has the appearance of legitimate funds e.g. using the money to buy a house and later sell it.

SOLUTION FOUR

(a) (i) Indeed it is true that a contract can be made for one who has not yet come into existence as long as they are artificial persons that is, a company. Such a contract is what is known as pre-incorporation contracts. They are contracts that sponsors of a company enter into in the name of the company that is yet to be registered. Such contracts are provided for under section 20 of the Companies Act 2017. The Act imposes a liability and benefits arising from such a contract on the persons entering into such a contract purporting to enter into the contract on behalf of the company yet to be registered. A person or persons that enter into such contracts are therefore entirely liable for breaches arising from that contract but are equally entitled to the benefits arising from the successful performance of the contract. The law recognizes such contracts to be valid on condition that the promoters are held liable in event of breach. In *Kelner v Baxter* (1866) LR 2 CP 174, where a contract with an unformed hotel to supply wine to the hotel was entered into. The hotel failed to pay for the wine and a suit ensued. The court held that the principal-agent relationship cannot be in existence and the company cannot take the liability of pre-incorporation contracts through adoption or ratification. The promoter was personally held liable for the pre-incorporation contract. In *Phonogram Limited v Lane* [1982] 1 QB 938 a manager of a music group had arranged financing for the group by borrowing money from a recording company in the name of an unformed company. The promoter however failed to pay the debt when it was due and the promoter was sued. The court held that the promoters are personally liable for the pre-incorporation contract.

(ii) These contracts are fully recognized by law and a company upon incorporation may ratify the contract and accrue the benefit or liabilities arising from the contract. Section 20(3) of the Companies Act 2017 makes provision for such ratification of the contract not later than fifteen months after incorporation of the contract. Upon ratification, the benefits that accrued to the persons that entered into the contract in the name of that company then transfer to the company which then would bear all the liabilities and benefits as if it existed at the time the contract was entered into.

(b) The article of association is one of the documents that are submitted to the registrar of companies during the process of registering a company. It is the constitution of the company. It regulates the relationship among the sponsors in the company and between the company and the outside world. The articles of association is an important document in that it works as a guide to the members of the company in the event that there is a dispute, the articles will always guide on how such would be redress. The articles further would provide for whether new members would be admitted into the shareholding of the company, how capital would be raised for the company and how dividends would be declared and shared etc. The article of association is one of the most important documents to be submitted to the Registrar of companies without which, a company may not be registered. The articles can be a standard articles contained in the Act or one that the members may tailor to their needs on how they wish their company to operate.

SOLUTION FIVE

(a) **Unfair dismissal** is where an employer terminates an employee's contract without a fair reason to do so. Unfair dismissal can be claimed by the employee if the employer had a fair reason but handled the dismissal using a wrong procedure. Chocho needs to look at the facts surrounding the dismissal of Jabulani. If Procedure was not followed, the net effect is unfair dismissal and the employer stands liable.

Wrongful dismissal is a dismissal in breach of contract and the only relevant considerations for a court or tribunal hearing such a claim will be the contractual obligations of the employer. ... The right not to be dismissed unfairly, on the other hand, is a statutory rather than a contractual right.

Resignation notice for one not on written contract- Chocho needs to note that the treatment of one not on written contract is different from the one who has contract. As a matter of practice, one who is not on contract, need to give 1 week notice or 2 weeks' notice at maximum. Chocho needs to consider this when dealing with this issue.

(b) With an implied agency, nothing has to be in writing or by oral agreement. ... With an express agency, **there has to be a specific agreement between the agent and the principals**. This agreement can either be in writing or orally. **Implied agency** is an agency that has been formed based on the conduct of the **principal** (or client) and the agent. It isn't an agreement that the two have made in writing, but instead, formed by something that has been done (conduct). Not all states recognize implied agency and instead, require that an agency must have a written agreement to exist. This is express agency.

SOLUTION SIX

(a) Incorporation of a company is where two or more people apply through the prescribed forms under the Zambian Company's Act 2017 to have their company registered by the Registrar of Companies at PACRA. The Act prescribes forms to be completed by applicant and stipulates the documents to be lodged together with the application. Upon approval by the registrar, the company then stands registered and is born as an artificial person.

(b) The effects of incorporation are that the company stands alone from its sponsors and has legal capacity to sue or be sued in its own name. Upon incorporation, the company is liable for its debts and sponsors cannot be answerable for the company's debts. ***Salomon v Salomon*** is instructive on this. In the case the court held that once incorporated, a company becomes a separate legal personality and can be held liable for its actions and not the sponsors. Even where the company is a sole trader as long as it is incorporated the sole owner cannot be held liable for the acts of the company

(c) **Agency by necessity.**

Agency by necessity occurs under circumstances where, although there is no agreement between the parties, an emergency requires that an agent take particular action in order to protect the interests of the principal. The usual situation which gives rise to agency by necessity occurs where the agent is in possession of the principal's property and, due to some unforeseen emergency, the agent has to take action to safeguard that property.

For this type of agency to exist, proof of the following must be shown:

(i) **There is a genuine emergency:** there must be proof that the circumstances that have arisen are a genuine emergency. An example can be traced in the case of **Great Northern Railway Co v Swaffield (1874)**, the railway company transported the defendant's horse and, when no one arrived to collect it at its destination, it was placed in a livery stable. It was held that the company was entitled to recover the cost of stabling, as necessity had forced them to act as they had done as the. defendant's agents.

(ii) **No ways of obtaining further instructions from the principal:** there must be no communication or method to communicate with the principal. This was seen i**n Springer v Great Western Railway Co (1921),** a consignment of tomatoes arrived at port after a delayed journey due to storms. A railway strike would have caused further delay in getting the tomatoes to their destination, so the railway company decided to sell the tomatoes locally. It was held that the railway company was responsible to the plaintiff for the difference between the price achieved and the market price in London. The defence of agency of necessity was not available, as the railway company could have contacted the plaintiff to seek his further' instructions.

(iii) **The agent must have acted bona fide in the interests of the principal:** where the agent acts on its own or not for the benefit of the principal. If the act is not beneficial of the principal, this type of agency may not exist. Thus, Zambia railway company acted as the agent of Chawatu Holdings Limited as all the above facts are present in the scenario given in that there was an emergency, there was no way of communicating to the principal being Chawatu

Holdings Limited and that the act was done in the best interest of the principal as seen in the case of **Great Northern Railway Co v Swaffield (1874)** and **Springer v Great Western Railway Co (1921).**

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA CERTIFICATE IN ACCOUNTANCY

CA 1.5: MANAGEMENT THEORY AND PRACTICE

MONDAY 20 MARCH 2023

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

INSTRUCTIONS TO CANDIDATES

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

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   Section A: Ten (10) compulsory multiple choice questions.
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5. **Cell Phones** are **NOT** allowed in the Examination Room.

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

8. Present legible and tidy work.

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

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

SECTION A

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 Information may be the main purpose of communication or maybe means of achieving other desired effects such as:

A. Accounting for work
B. Initiating some action
C. Getting results
D. Paying tax to ZRA

(2 marks)

1.2 Contingency management is based on belief that ……………………….

A. There is no one best way of managing and leading
B. There is always one best way of managing and leading
C. There is always one good employee in every organization
D. Every manager can be the best if given the right human resource.

(2 marks)

1.3 The Sole trader and the Cooperative have the following in common:

A. Making the best decisions
B. Can easily access Advance from the Bank
C. Challengers in getting Transporting goods
D. No need for certificate of incorporation.

(2 marks)

1.4 The following people made a significant contribution to Human resources management and advocated that people have feelings which can affect their work attitudes.

A. Fredrick W Taylor
B. Abraham Maslow
C. Elton Mayo
D. David McClelland

(2 marks)

1.5 …………………………………is not part of the recruitment process

A. Checking the back ground information on the applicant
B. Asking the employee to rewrite a national examination.
C. Selecting the candidates based on Gender and Age.
D. Induction process.

(2 marks)

1.6 ……………………………………is the form of a management that is more concerned with people than organization results

A. Team Management
B. Impoverished Management
C. Country Club Management
D. Produce or Perish management

(2 marks)

1.7 Which of the following can help to reduce labor turnover.

A. Less working hours
B. Good Labor unions
C. Good Leadership skills
D. High profits in the company

(2 marks)

1.8 Which of the following clearly defines a stakeholder

A. An employee of the company
B. A person who has the same business
C. Non-Governmental Organizations (NGOs)
D. An international sister company

(2 marks)

1.9 The process of converting private owned organizations to Government owned.

A. Democratization
B. Nationalization
C. Privatization
D. Public Private Partnerships

(2 marks)

1.10 One of the following is the reason why a good organization structure influences the company operations?

A. Employees are happy
B. Communication channels are clear
C. Managers work hard
D. Performance appraisal is done

(2 marks)

[Total: 20 Marks]

SECTION B

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

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

<u>QUESTION TWO</u> – (COMPULSORY)

Effective Management is the key to organization success. A successful manager needs to understand some fundamental theories of management. Henri Fayol has been regarded by many as the father of modern operational management theory, and his ideas have become a fundamental part of modern management concept.

Required:

(a) Explain Henri Fayol's five (5) functions of management. (15 marks)

(b) List down any five (5) principles of management according to Henri Fayol. (5 marks)

[Total: 20 Marks]

<u>QUESTION THREE</u>

With the increase in Constituency Development Funding (CDF) by the government, most people are being encouraged to form Cooperatives and, Small and Medium Enterprises (SMEs) because this has created a window of business opportunities in Zambia and for Zambians. However, a good business must have clear goals and well set objectives.

Required:

(a) List Four (4) advantages of a Cooperative form of business. (4 marks)

(b) Define the following terms in relation to organisations (i) Mission statement and (ii) Organizational goals. (6 marks)

(c) Explain what is meant by Objectives must be SMART . (10 marks)

[Total: 20 Marks]

QUESTION FOUR

(a) Explain the difference between Recruitment and Selection. (4 marks)

(b) Define the following terms in relation to management;

(i) Responsibility (2 marks)

(ii) Authority. (2 marks)

(c) Explain the meaning of theory X and Theory Y according to McGregor. (12 marks)

[Total: 20 Marks]

QUESTION FIVE

(a) Explain five (5) advantages of Decentralization. (10 marks)

(b) Show three (3) differences between the Sole trader enterprise and Public limited company. (6 marks)

(c) List down four (4) external stakeholders of a company. (4 marks)

[Total: 20 Marks]

QUESTION SIX

In 2020, Joshua the CEO for Aka-Tilimu import and export introduced a Strategic initiative to decentralize all the company operations in an effort to expand the operations. It was a transformational change and most of the shareholders were not so sure if it was going to yield any good for the company. For Joshua, he was confident but he needed support from both the shareholders and shareholders.

Required:

(a) Identify three (3) internal triggers for change in an organization (6 marks)

(b) Explain three (3) requirements to manage change (9 marks)

(c) Explain what is meant by the term "Transformational Change". (5 marks)

[Total: 20 Marks]

END OF PAPER

CA 1.5: MANAGEMENT THEORY AND PRACTICE SUGGESTED SOLUTIONS

SOLUTION ONE

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

SOLUTION TWO

(a) **Explain Henry Fayol's Five (5) Functions of management**

(i) **Planning:** This is the first and most important function of management. According to Fayol, every company needs a good plan of action. However, a critical thing related to planning is the involvement of the entire organization.

(ii) **Organizing:** Organizations cannot survive unless they are properly organized. It also helps at coordination of tasks between various levels and departments.

(iii) **Commanding:** Commanding is an essential management function. The management should give clear commands to its workforce so it can produce the desired output

(iv) **Controlling:** Control or monitoring ensures that everything is running as per the plan. Evaluation is a very important component of this function. Managers should evaluate employee performance regularly to ensure adherence to the plan.

(v) **Co-ordinating:** Leadership must focus on coordination to ensure proper workflow, employee motivation as well as high productivity. All these things can be achieved through coordination.

(b) **List down any five (5) principles of management according to Henry Fayol**

(Any five of the 14 principles of management can be given)

(i) **Division of work-** work should be divided into jobs with separate areas of activity.

(ii) **Discipline-** Exercise of discipline at work place is an outward mark of respect for agreements between management and its members

(iii) **Unity of Direction-** One plan to direct the unity of action must be available for everyone to engage in.

(iv) **Equity**- there should be fairness and equity of treatment in dealing with employees thought out all levels of the organization.

(v) **Initiative**- employees at all levels can perform with enthusiasm and energy if they are allowed to use their initiative in the work they do.

SOLUTION THREE

(a) **List Four (4) advantages of a Cooperative form of a business**

(i) There are equal voting rights for members.
(ii) The structure encourages member contribution and shared responsibility.
(iii) Liability for members is limited.
(iv) There is no limit on the number of members

(b) **Define the following terms in relation to organisations (i) Mission Statement and (ii) Organizational goals**

(i) **Mission statement**-this is the organizations overriding purpose. It reflects the values and expectations of stakeholders and answers the question 'what business are we in?
(ii) **Organizational Goal-** Statement of general aim or purpose that supports the mission. It may be qualitative in nature.

(c) **Explain what is meant by objectives must be SMART**

S=Specific- Narrow and specific
M=measurable-define what evidence will prove that you are making progress
A=Achievable= must be attainable or must be accomplishable
R= Realistic= must be relevant and aligned to the values
T= Time bound= must have a time limit or end time

SOLUTION FOUR

(a) **Explain the difference between Recruitment and Selection**

(i) Recruitment involves actively seeking out and advertising to potential candidates and obtaining their interest in the position.

(ii) Selection refers to the process of determining the best candidate from the pool of applicants.

(b) **Define the following terms in relation to management**

(i) **Responsibility** refers to the liability of a person to be called to account for his /her actions and decisions.

(ii) **Authority** refers to the scope and amount of discretion given to a person to make decisions or take action.

(c) Explain the meaning of Theory X and Theory Y

Assumptions of Theory X

(i) An average employee intrinsically does not like work and tries to escape it whenever possible.

(ii) Since the employee does not want to work, he must be persuaded, compelled, or warned with punishment so as to achieve organizational goals. A close supervision is required on part of managers. The managers adopt a more dictatorial style.

Assumptions of Theory Y

(i) Employees can perceive their job as relaxing and normal. They exercise their physical and mental efforts in an inherent manner in their jobs.

(ii) Employees may not require only threat, external control and coercion to work, but they can use self-direction and self-control if they are dedicated and sincere to achieve the organizational objectives.

SOLUTION FIVE

(a) **Explain five (5) advantages of Decentralisation**

(i) Decision are made at a local level
(ii) Resources are used at a local level
(iii) Implementation of projects is faster
(iv) It promotes motivation
(v) Reduces pressure on central executives

(b) **Show three differences between a Sole trader enterprise and a Public limited company**

(i) Sole trader have private ownership while public limited companies have public ownership.
(ii) Sole trader do not disclose profits to the public while Public Limited are mandated to disclose their profits to the public.
(iii) Sole trade does not require much process to register while Public limited companies have much process to comply on registration

(c) **List down Four (4) external stakeholders of a company**

(i) Financial institutions
(ii) Government
(iii) Customers (Buyers)
(iv) Suppliers

SOLUTION SIX

(a) Identify THREE (3) internal triggers for change in an organization

(i) Change in senior Management

(ii) Acquisition/Merger: when an organization takes over another organization

(iii) Reorganization or downsizing: Decisions to close down a loss-making organization or relocation its operations to another area.

(b) Explain THREE (3) requirements to manage change

(i) Identification of the changes that should be made

(ii) Reorganizing the need to change systems and organization structures to make the changes work successfully

(iii) Careful planning and implementation of the change

(iv) Making sure that the changes stick and remain in place.

(c) Define the term "Transformational Change".

Transformational change is a major change that requires a substantial reorganization and its systems. Transformation has a big effect on the organization and the people working in it, and exceptional change management skills are needed to implement the change successfully.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA CERTIFICATE IN ACCOUNTANCY

CA 1.6: BUSINESS COMMUNICATION

WEDNESDAY 22 MARCH 2023

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

INSTRUCTIONS TO CANDIDATES

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

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

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

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

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

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

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

8. Present legible and tidy work.

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

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

SECTION A – (Compulsory)

Attempt all ten (10) multiple choice questions

<u>QUESTION 1</u>

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

<u>QUESTION ONE</u>

1.1 In Microsoft windows, the title bar may **NOT** be used to

A. Maximize a window
B. Move a window
C. Copy a window
D. Minimize a window

(2 marks)

1.2 A website address is also referred to as a Uniform Resource Locator (URL). Given the following example, "www.zicazambia.zm", what name is given to the part "zicazambia"?

A. Domain name
B. Organization type
C. Organization
D. Domain location

(2 marks)

1.3 Which of the following corresponds to an organized campaign to bombard an internet site with excessive volumes of traffic at a given time?

A. Trap doors
B. Denial of Service
C. Time bombing
D. Hoaxing

(2 marks)

1.4 Which of the following is **NOT** a fundamental component of a DSS?

A. DBMS

B. MBMS

C. DGMS

D. DOAS

(2 marks)

1.5 Consider the statements written below:

(1) Integrated software refers to programs, or packages of programs, that perform a variety of different processing operations

(2) An operating system is in charge of supervising the running of application packages.

Are the two (2) statements above true or false?

A. Both statements are false

B. Statement 1) is true but statement 2) is false

C. Both statements are true

D. Statement 1) is false but statement 2) is true

(2 marks)

1.6 Define a routine report:

A. A report produced every year

B. A report produced regularly

C. A report that is massive and complex

D. A report that is less complex

(2 marks)

1.7 Which one of the 7C's of effective communication best describes accurate information?

A. Courtesy

B. Concreteness

C. Correctness

D. Completeness

(2 marks)

1.8 Define the term encode.

A. To put the information in the manner the recipient would understand

B. To interpret the message

C. To provide sufficient feedback

D. To decode the message

(2 marks)

1.9 Which of the following is a salient feature of oral communication?

A. Allows Instant feedback

B. Can have very high impact

C. Draws attention to changes and trends

D. Every recipient gets exactly the same information

(2 marks)

1.10 Diagonal communication is an example of ______________________.

A. Grapevine communication

B. Informal communication

C. Formal communication

D. Lateral communication

(2 marks)

[TOTAL: 20 Marks]

SECTION B

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

Attempt any three (3) questions from the remaining four (4)

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

Officers are once in a while required to write reports to their superiors.

It has been noticed that there is a reduction on the number of learners who enroll for accounts courses. As a head of finance department of your college, you have been asked to investigate the matter to establish the cause.

Required:

(a) Briefly explain any two (2) examples of reports an officer may be required to produce at place of work (4 marks)

(b) Write the report and give three (3) recommendations on how the situation could be improved upon following your investigations in the field. (16 marks)

[Total 20 Marks]

<u>QUESTION THREE</u>

(a) State any five (5) advantages of email. (5 marks)

(b) An operating system provides a link between the application software and hardware. State any five (5) tasks it is able to perform. (5 marks)

(c) Explain 'Transaction Processing System' (TPS) and provide two (2) areas of business in which TPS could be used by your organization. (6 marks)

(d) Mention any four (4) data quality principles which can be used in data quality assessment and reporting. (4 marks)

[Total: 20 Marks]

QUESTION FOUR

(a) Passwords can be applied to computer data files, program files and to parts of a program.

(i) State three (3) main checks or operations involved in logic access controls. (6 marks)

(ii) State four (4) ways in which passwords can be obtained by unauthorised people. (4 marks)

(b) Accounting Information Systems generally collect and process information in two (2) ways, batch or online processing.

(i) The choice of processing to be adopted for in a system relies on management requirements. Give any two (2) examples of such requirements. (2 marks)

(ii) Distinguish between batch processing and real time processing from two (2) perspectives; information time frame and resources required. (4 marks)

(c) List any four (4) security risks that are associated with Information Systems. (4 marks)

[Total: 20 Marks]

QUESTION FIVE

The following table reflects the performance of the Kwacha in the last two (2) quotas of 2021. You decided to use the information for a work presentation during your in house workshop. Study the following table that reflects how the Kwacha has performed in the last quota of 2021.

Month	Jun	Jul	Aug	Sep	Oct	Nov	Dev
ZMK per USD	22.50	22.62	19.25	16.07	17.71	17.26	17.79

Required:

(a) Plot a line graph showing the Zambian Kwacha (ZMK) to US Dollar (USD) Historical Exchange Rates for the last 2 quarters of 2021**.** (6 marks)

(b) Explain any three (3) advantages of using graphic communication. (6 marks)

(c) State any four (4) key principles of effective graphic communication to be considered when designing a diagram or chart**.** (4 marks)

(d) Explain the difference between a line graph and a bar chart. (4 marks)

[Total: 20 Marks]

QUESTION SIX

You are working for LA Limited and decided to pursue your studies in accounts. Recently you received a scholarship to study in Norway. The mode of study is on line. However, one of the other requirements is to travel to Norway once every year for three (3) months. As a result you will be required to take annual leave in order to pursue your training activities.

Required:

(a) Write a letter to the Human Resources Manager requesting for annual leave. In your letter explain why you are taking time off and how long you will be away. (14 marks)

(b) State two (2) characteristics of written communication. (4 marks)

(c) Explain the following parts of a letter:

(i) Enc

(ii) Pp (2 marks)

[Total: 20 Marks]

END OF PAPER

CA 1.6: BUSINESS COMMUNICATION SUGGESTED SOLUTIONS

SOLUTION ONE

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

SOLUTION TWO

LITAMA INSTITUTE (Any name)

Report on Dwindling Number of Learner Enrolment in accounts courses

1.0 Terms of Reference

Having been tasked to investigate the reduction in the enrolment of learners in accounts courses, an investigation was carried on this matter. A report was then written, giving recommendations to reverse the trend, It was reported as follows:

2.0 Procedures

The following procedures were used to collect information in the field:

(a) Interviews on a selected group of members of society
(b) Questionnaire administered to selected sections of the community

3.0 Findings

The following were facts found underground:

(a) From the interviews, the following were found:
- Lack of job opportunities in accounts these days
- Poor pass rate in accounts courses discourage learners from taking accounts courses
- The cost of training has risen much

(b) From the questionnaire administered ,It was found that there was:
- lack of awareness of the available training opportunities
- lack of sponsorship among others were reflected.

4.0 Conclusion

It can be concluded that there was:

- Labour market competition in accounts courses.
- Unaffordable cost of training in accounts fields
- Unavailable training information to the community are some sources of hindrances to enrolments

5.0 Recommendations:

The training institution must hold career talks with young people in the community

The training institute should employ motivating staff to improve pass rates and

Encouraging local organizations to sponsor accounts programmes

Signature

Mr. K. Zimba

Head Finance department

Date Any date during examination time

SOLUTION THREE

(a)

- Speed
- Economy
- Efficiency
- Security
- Documents can be attached
- Delivery and read receipts
- Low transmission cost
- Ease of automation

(b) Tasks performed by the operating system

- Opening and closing of files
- Maintenance of directories in the disk storage
- Calling up of program files and data files into memory
- Checking that hardware is functioning properly
- Initial set-up of the computer
- Controlling input and output devices
- Controlling system security
- Managing multitasking
- Handling of interruptions

(c) A TPS is a computerized package designed to record the basic transaction data of an Organisation.

- TPS will be used in accounting system, which will record data on income and expenditure and will focus upon summarising the data into financial reports and preparation of the financial statements.
- The organisation will require a basic accounting package such as Sage or Pastel, which will record order data, invoice data, expenditure, revenue and salaries
- The organisation can utilise a basic production system which could help to schedule material deliveries from fabric suppliers and which could schedule order production

(d)

- Institutional environment
- Relevance
- Timeliness
- Accuracy
- Coherence
- Interpretability
- Accessibility

SOLUTION FOUR

(a)

(i) **Operations include:**

- Identification of the user
- Authentication of the user identity
- Checking on user authority

(ii) **Passwords can be obtained through**

- Hacking software
- Knowledge of personal details
- User carelessness
- User deception

(b) Describe the type of information systems needed at each level indicated below:

(i) **management requirements include:**

- Routine recording of accounting data
- Preparation of management information e.g. reports
- Fact retrieval for decision making

(ii) **Distinction between batch and real time processing**

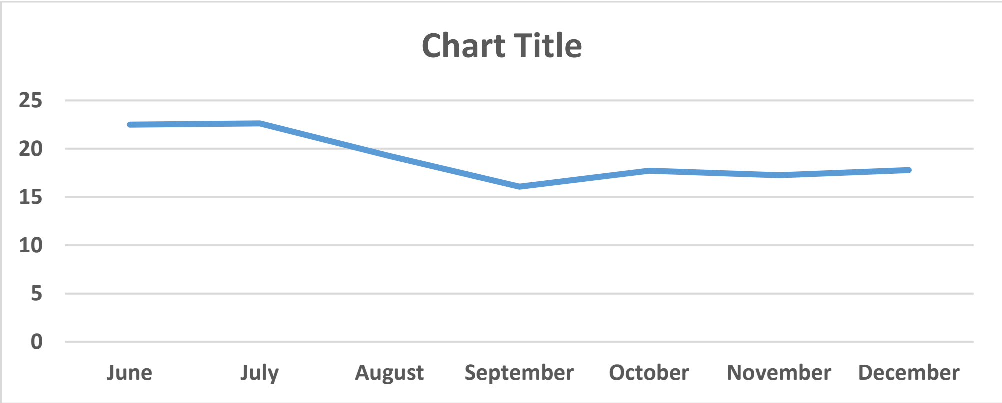
	Batch processing	**Real time**
Resources required	Generally fewer	More resources required
Information time frame	Lag exists between time when event occurs and when processing and recording of data takes place	Processing is done immediately

(c) List any security risks that are associated with Information Systems.

- Viruses
- hackers and eavesdroppers
- Hoaxes
- denial of service attack
- threats to confidentiality
- threats to integrity
- threats to availability

SOLUTION FIVE

(a) Line Graph



(b) Advantages

- Effective for illiterate receiver
- Helps in oral communication
- Easy explanation:
- Simple presentation:

(c) Effective Graphic communication

- Give each diagram concise and meaningful title
- Cite the source of data
- Clearly label all elements
- Keep text elements brief
- Keep presentation simple
- Make the diagram large enough

(d) Line graph vs bar chart

- Line graph shows relationship between two variables while bar chart shows or compares the magnitude of sizes of item

SOLUTION SIX

(a)

Mooba Investment Ltd

P.O Box 10

Lusaka

17th June, 2022.

The Human Resources Manager

Mooba Investment Ltd

P.O. Box 10

Lusaka

Dear Mr. Lubinda,

Re: Application for Annual Leave

I am writing to let you know that on 12 July, 2022, I will be traveling to Norway for my on-campus studies. My on-campus studies are for three (3) months. I therefore request that I take annual leave between the 10th July and 24th July, 2022. I request that you adjust my leaves in accordance with my quota of annual leave sanctioned by the company.

I have requested that my colleague, Mr. Peter Banda to stand in for me when need arises. I have already handed over all project materials to him, and I do not anticipate any problems while I am away.

Due to the nature of my travel plans, I may not be available to take calls or respond to emails. Please contact Mr. Banda in case of emergencies.

You positive response will be highly appreciated.

Yours sincerely,

M. Matakala

Mumba Matakala

(b) Written Communication

- Keeps formal records
- Every recipient gets the exact same message
- No immediate response
- Can be used as reference

- Requires time to prepare

(c) (i) Enc is an enclose in a letter. An attachment in a covering letter such as a C.V. for a job application letter.

(ii) Pp is signing on behalf of some one

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ZAMBIA APPLICATION ADVANCED DIPLOMA IN IN ACCOUNTANCY

CA 2.1: FINANCIAL REPORTING

MONDAY 20 MARCH 2023

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

INSTRUCTIONS TO CANDIDATES

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

2. This paper is divided into TWO sections:

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

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

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

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

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

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

8. Present legible and tidy work.

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

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

SECTION A

This question is compulsory and must be attempted.

QUESTION ONE

On 1 April 2022 Peace Ltd acquired 60% of the 75 million K1.00 equity shares of Love Ltd. The acquisition was achieved through a share exchange transaction of one share in Peace Ltd for every three shares in Love Ltd. At the acquisition date, the share prices of Peace Ltd and Love Ltd were K4 and K2.50 each respectively. In addition, Peace Ltd will pay K1.54 cash on March 31, 2023 for each share acquired. The cost of capital of Peace Ltd is 10% per annum.

Statements of profit or loss and other comprehensive income for the companies for the year ended 30 September 2022 are stated below:

	Peace Ltd K000	**Love Ltd K000**
Sales revenue	310,000	155,000
Cost of sales	(200,000)	(75,000)
Gross profit	110,000	80,000
Distribution costs	(20,000)	(10,000)
Administrative expenses	(18,000)	(12, 500)
Investment income	2,500	800
Finance costs	(1,000)	(2,800)
Profit before tax	73,500	55,500
Income tax expenses	(22,500)	(15,500)
Profit for the year	51,000	40,000
Other comprehensive income:		
Gained (loss) on revaluation of land	(1,100)	1,500
Total comprehensive income	**49,900**	**41,500**

Additional relevant information:

(i) On April 1, 2022, a fair value exercise was conducted and concluded that the carrying amounts of Love Ltd's net assets were equal to their fair values with the exception of the following:

The fair value of Love Ltd land was K1 million in excess of its carrying amount.

An item of plant had a fair value of K3 million in excess of its carrying amount. The plant had a remaining useful life of two years at the date of acquisition. Plant depreciation is charged to cost of sales.

(ii) At acquisition date, Peace Ltd placed K2.5 million on Love Ltd's good trading relationship with its customers. Peace Ltd expects that this customer relationship will last for a further 5 years. Amortisation of intangible assets is charged to administrative expenses.

(iii) The group policy of Peace Ltd is to value land to market value at the end of each accounting period. Before the acquisition, Love Ltd land had been valued at historical cost, but it has adopted the group policy since its acquisition. In addition to the fair value increase in Love Ltd land, it had increase by a further K0.5 million since the acquisition.

(iv) The successful completion of the acquisition resulted in the sale of goods from Peace Ltd to Love Ltd valued at K10 million. At 30 September 2022, Love Ltd still held one fifth of these goods in inventory. Peace Ltd charged a markup of 25% on cost.

(v) On April 1, 2022, Peace Ltd also purchased 20% of Joy Ltd equity shares. Joy Ltd profit after tax for the year ended 30 September 2022 was K5 million and during September 2022 Joy Ltd paid a dividend of K3 million. However, Love Ltd did not pay any dividends in the year ended 30 September 2022.

(vi) In September 2022, Peace Ltd also sold goods to Joy Ltd for an amount of K7.5 million, all of which were still in inventory as at 30 September 2022. Peace Ltd charged 25% mark-up on cost.

(vii) It is the Peace Ltd group policy to value the non-controlling interest at fair value on the date of acquisition. For the purpose of this, the share price at acquisition date is representative of the fair value of shares held by the non-controlling interest.

(viii) The retained earnings of Love Ltd brought forward to October 1, 2021 were K60 million.

(ix) All items of income and expenditure are deemed to accrue evenly throughout the period unless otherwise stated.

Required:

(a) Prepare the consolidated statement of profit or loss and other comprehensive income for the year ended 30 September 2022. (30 marks)

(b) Calculate the consolidation goodwill that arose on the acquisition date. (5 marks)

(c) **IAS 28: *Investment in Associates and Joint Ventures*** defines an associate as an entity over which an investor has significant influence. Significant influence is the power to participate in the financial and operating policy decisions of the investee but control or joint control of those policies. Significant influence is presumed to exist where the investor entity holds at least 20% (but not more than 50%) of the voting power of the investee entity. In assessing significant influence, all facts and circumstances are assessed, including the term of exercise of potential voting rights and any other contractual arrangements.

Required:

Identify five (5) factors that are indicative of significant influence. (5 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt THREE (3) questions in this section.

QUESTION TWO

Kapunda Plc's trial balance at 31 December 2022 is as follows:

	K'000	K'000
Revenue (note i)		323,150
Cost of sales	150,000	
Distribution costs	22,500	
Administrative expenses	26,500	
Dividends paid	1,900	
Bank interest	600	
10% loan notes interest paid	4,000	
Building at valuation (note ii)	100,000	
Plant and equipment at cost (note ii)	155,000	
Accumulated depreciation at 1 January 2022:		
Plant and equipment		35,500
Inventory at 31 December 2022	51,000	
Trade receivables	49,200	
Trade payables		25,600
Bank		5,700
Equity shares of 50 Ngwee each		60,500
Share premium		32,500
Retained earnings at 1 January 2022		33,450
10% Loan notes (note iii)		38,000
Current tax (note)		2,800
Deferred tax (note)		3,500
	560,700	560,700

The following notes are relevant:

(i) Revenue includes K20 million received on 1 July 2022 from a customer as advance payment for goods Kapunda Plc will deliver on 30 June 2023. Kapunda Plc normally borrows to finance its trading operations at an interest rate of 10%.

(ii) Kapunda Plc has adopted the IAS 16 revaluation policy in respect of its building. The building which cost K125 million on 1 January 2017 and whose total useful economic life is estimated at 50 years was last revalued on 31 December 2021. The building is depreciated on a straight line basis with a nil residual value. Depreciation on the building must be included in cost of sales. The building is yet to be revalued at 31 December 2022 to a fair value of K115 million.

Plant and equipment is depreciated at 15% reducing balance basis. Depreciation on plant and equipment is included in cost of sales.

(iii) Kapunda Plc issued 40 million 10% K1 loan notes on 1 January 2022 at a discount of 5%. The loan notes pay interest on 31 December each year over their 3 year term to maturity. The loan notes will be redeemed at par on 31 December 2024 giving an effective interest rate of 12.11%. The liability in respect of the loan notes is included in the above trial balance at the initial issue proceeds received.

(iv) On 1 July 2022, Kapunda Plc issued 16.8 million equity shares at a premium of 25% followed by a bonus issue on all existing shares including the new ones at a ratio of one bonus share for every four existing shares. The bonus was financed out of the share premium reserve. Both share issues have already been accounted for.

(v) The balance on current tax represents the under/over provision for the tax liability for the year ended 31 December 2021. A provision of K19 million is required for current tax for the year ended 31 December 2022 and at this date, the deferred tax liability was assessed at K4.1 million.

Required:

(a) Prepare the statement of profit or loss and other comprehensive income for Kapunda Plc for the year ended 31 December 2022. (9 marks)

(b) Prepare the statement of financial position for Kapunda Plc as at 31 December 2022. (8 marks)

(c) Prepare the statement of changes in equity for Kapunda Plc for the year ended 31 December 2022. (3 marks)

[Total: 20 Marks]

QUESTION THREE

Musika is a farmer specialised in growing of cash crops for both local and international markets. Musika's farming activities take place both in and out of season. Recently, Musika approached its bankers for a loan so as to boost its resources. Besides the loan, Musika receives grants from the government that assist in acquiring farm machinery. Musika's bankers have asked the company to submit its statement of cash flows for the year ended 31 March 2022.

Below are the financial statements of Musika for the year ended 31 March 2022 with the comparative statement of financial position for the year to 31 March 2021.

Statement of profit or loss for the year ended 31 March 2022

		K'000
Revenue		9,550
Cost of sales		(6,550)
Gross profit		3,000
Operating expenses	note 1	(750)
Finance cost		(75)
Profit before tax		2,175
Income tax expense		(675)
Profit for the year		1,500

Other comprehensive income:	
Revaluation surplus	350
Total comprehensive income	1,850

Statement of financial position as at 31 March:

	2022	2021
	K'000	K'000
Non current assets		
Property, Plant and Equipment	4,725	4,575
Intangible assets	1,625	750
Total non current assets	6,350	5,325
Current assets		
Inventory	3,550	2,350
Trade receivables	2,475	1,700
Cash	175	-
Total current assets	6,200	4,050
Total assets	12,550	9,375
Equity and liabilities		
Ordinary shares of K1 each	1,875	1,250
Share premium	875	250
Revaluation surplus	350	-
Retained earnings	4,725	4,000
Total equity	7,825	5,500
Non current liabilities:		
10% loan notes	750	250
Government grants	650	750
Deferred taxation	775	350
Total non current liabilities	2,175	1,350
Current liabilities:		
Trade payables	2,188	1,825
Bank overdraft	-	288
Accrued loan interest	37	12
Current tax payable	325	400
Total current liabilities	2,550	2,525
Total equity and liabilities	12,550	9,375

The following additional information is relevant:

1. Depreciation of Property, Plant and Equipment for the year amounting to K800,000 and a loss on disposal of PPE amounting to K125,000 are included in cost of sales.

2. Intangible assets represent deferred development expenditure. During the year ended 31 March 2022, Musika successfully completed the development of a weeding chemical, capitalizing a further K1.25 million before amortization charge for the period.

3. Musika revalued upwards its farm buildings by K500,000. K150,000 has been transferred from revaluation surplus to retained earnings as a year end adjustment in respect of additional depreciation created by the revaluation exercise.

Furthermore, new plant was acquired during the year at a cost of K625,000 and a government grant of K125,000 was received in respect of this purchase.

4. Musika diversified its sources of finance by issuing shares for cash during the year.

5. Musika paid dividends to its shareholders during the year.

Required:

Prepare a statement of cash flows for Musika for the year ended 31 March 2022 in accordance with IAS 7 Statement of Cash Flows. **[Total: 20 Marks]**

QUESTION FOUR

Ibili Plc is a construction and Mining entity based on the Copperbelt region of Zambia. The directors of Ibili seek advice on how they must account for the following transactions in preparing financial statements for the year to 31 December 2022:

Transaction 1 – Acquisition of Mine

On 1 January 2022, Ibili acquired a newly constructed mine shaft at a cost of K60 million following the grant of a mining licence by the government. The terms of the licence are that Ibili will have to remove the shaft and restore the land to an environmentally satisfactory condition in 10 years' time when the mineral ore reserves have been exhausted. Ibili has estimated that the restoration cost arises in two parts: the cost of dismantling the shaft which has been constructed on 1 January 2022 and the cost of burying the mine. The estimated cost of restoration on 31 December 2031 will be K30 million of which K20 million relates to burying the mine. The end of year 10 discount factor at a rate of 10% is 0.386. Assume that the cost of burying the mine arises in equal amounts over the mine's useful economic life.

(10 marks)

Transaction 2 – Construction Project

Ibili has been contracted by a customer to construct a building. The contract has an agreed price of K500 million. The cumulative progress of the contract is as follows:

Year ended:	31 December 2021 Kmillion	31 December 2022 Kmillion
Costs incurred	160	290
Work certified and billed	150	320
Billings received	140	300
Estimated further costs to complete	300	220

The directors of Ibili have assessed that profitability of the contract can be reliably measured to date. Ibili Plc's policy is to measure percentage complete of construction contracts based on costs to date as a proportion of total contract costs. (10 marks)

Required:

Explain to the directors of Ibili Plc how the above transactions must be accounted for in its financial statements for the year to 31 December 2022 showing amounts to report by way of financial statement extracts. **[Total: 20 Marks]**

QUESTION FIVE

(a) The objective of IFRS 9 Financial Instruments is to establish principles for the financial reporting of financial assets and financial liabilities that will present relevant and useful information to users of financial statements for their assessment of the amounts, timing and uncertainty of the entity's future cash flows.

Required:

Explain circumstances under which a financial asset will be classified as an amortized cost instrument. (4 marks)

(b) Mukela Ltd utilized a number of financial instruments in the year to 31 March 2022. The following are the details of the instruments:

On 1 April 2021 Mukela issued 24 million 5% K1.00 loan notes at a discount of 2% and incurred issue costs of K0.6 million. The loan notes have an effective interest rate of 8%.

On 1 April 2021 Mukela Ltd issued 15 million 3% K1.00 convertible loan notes at par. The loan notes can be converted at the rate of 1 K 0.50 equity share per note at any time before after 31 March 2022. However, any loan notes not converted are redeemable at par on 31 March 2024. The loan notes pay periodic interest on 31 March over their term to maturity. Similar loan notes without conversion rights had a market interest rate of 8%.

Discount rates are:

	3%	**8%**
Year 1	0.971	0.926
Year 2	0.943	0.857
Year 3	0.915	0.794

Required:

(i) Show the effect of the 5% loan notes on the financial statements of Mukela Ltd for the year ended 31 March 2022. (8 marks)

(ii) Explain how the convertible loan note will be accounted for by Mukela Ltd for the year ended 31 March 2022. (8 marks)

[Total: 20 Marks]

END OF PAPER

CA 2.1: FINANCIAL REPORTING SUGGESTED SOLUTIONS

SOLUTION ONE

(a) **Consolidated statement of profit or loss and other comprehensive income for the year ended 30 September 2022**

	K000
Sales revenue (K310,000 + (K155,000 x 6/12) - K10,000	377,500
Cost of sales W3	(228,650)
Gross profit	148,850
Distribution costs (K20,000 + (K10,000 x 6/12)	(25,000)
Admin expenses (K18,000 + (K12,500 x 6/12) + (K2,500/5yrs x 6/12) Operating Profit	(24,500) 99,350
Investment income: share of profit from associate (K5,000 x 20% x 6/12) - (20% x 7,500 x 25/125)	200
Other investment income (K2,500 – K600 div from associate) + K800 x 6/12)	2300
Finance costs (K1,000 + (K2,800 x 6/12) + (K63,000 x 10% x 6/12)	(5,550)
Profit before tax	96,300
Income tax expense (K22,500 + (K15,500 x 6/12)	(30,250)
Profit for the year	**66,050**
Other comprehensive income:	
Loss on revaluation (- 1,100 + 500)	(600)
Total comprehensive income	65,450
Profit for the year attributable to:	
Shareholders of parent (K66,050 – K7,440)	58,610
Non-controlling interest (K40,000 x 6/12 - K750 – K400 -250)	7,440
	66,050
Total comprehensive income attributable to:	

Shareholders of the parent (K65,450 – K7,640)	57,810
Non-controlling interest (K7,440 + (K 500 x 40%)	7,640
	65,450

Workings W1 Group structure

Peace Ltd

Group 60%

(6 months)

Group 20%

(6 months)

NCI 40%

Love Ltd

Joy Ltd

W2 Net assets – Love Ltd

	K000	Acquisition date K000	Reporting date K000
Share capital		75,000	75,000
Retained Earnings: Bal b/f	60,000		
Plus (6/12 x K40,000)	20,000	80,000	100,000
Fair value at acquisition date:			
a). Land		1,000	1,000
b). Plant		3,000	3,000
Addition Depreciation (K3m/2yrs x 6/12)		--	(750)
Customer relationship asset at acquisition		2,500	2,500
Additional amortization (K2.5/5yrs x 6/12)		-	(250)
		161,500	**180,500**

W3 Group cost of sales

	K000
Peace Ltd	200,000
Love ltd (K75,000 x 6/12)	37,500
Intra-group purchases	(10,000)
Additional depreciation(K 3000 / 2yrs x 6/12)	750
Unrealized profit in inventories:	
Sales to Love Ltd (K10,000 x 1/5 x 25/125)	400
	228,650

(b) **Goodwill calculation**

	K000
Purchase consideration:	
Shares (60% x 75,000 shares x 1/3 x K4)	60,000
Deferred consideration (60% x 75,000 shares x K1.54 x 1/1.1)	63,000
	123,000
Fair value of NCI at acquisition date (40% x 75,000 shares x K2.50)	75,000
	198,000
Net asset at acquisition date [75,000+60,000 + 6/12 x 40,000 +1,000+3,000+2,500]	(161,500)
	36,500

Alternative Working for goodwill

	K000	**K000**
Purchase consideration		123,000
Share of net assets (60% x K161, 500)		(96, 900)
		26,100

Fair value of NCI at acquisition date	75,000	
NCI share of net assets at acquisition date (40% x K161, 500)	(64,600)	10,400
		36,500

(c) **The following factors are indicative of significant influence:**

- Representation on the board of directors or equivalent governing body;
- Participation in the policy-making process, including decisions about dividends and other distributions;
- Material transactions between parties;
- Interchange of managerial personnel; and
- Provision of essential technical information.

SOLUTION TWO

(a) Kapunda Plc statement of profit or loss and other comprehensive income or the year ended 31 December 2022.

		K'000	K'000
Revenue	(323,150-20,000)		303,150
Cost of sales	(W1)		(157,925)
Gross Profit			145,225
Distribution Costs		(22,500)	
Administrative Expenses		(26,500)	
			(49,000)
Operating Profit			96,225
Finance Costs	(40,000XK1X0.95X12.11%+600+10%X20,000X6/12)		(6,202)
Profit Before Tax			90,023
Income Tax Expense	(W2)		(16,800)
Profit for the Year			73,223
Other Comprehensive Income:			
Revaluation of Building	(W)		5,000
Other Comprehensive Income for the Year			78,223

(b) Kapunda Plc statement of financial position as at 31 December 2022.

		K'000	K'000
Assets			
Non-current			
Property Plant and Equipment	(W4)		216,575
Current			
Inventory		51,000	
Trade Receivable		49,200	100,200
Total Assets			316,775
Equity and Liabilities			
Equity			
Equity shares of 50 Ngwee each		60,500	
Share Premium		32,500	
Revaluation Reserve	(W)	5,000	

Retained Earnings	(33,450-1,900+73,223)	104,973	142,273
Total Equity			202,773
Non-current liabilities			
10% loan notes (K1X40000X0.95)		38,000	
Deferred Tax		4,100	
42,100			
Current liabilities			
Bank overdraft		5,700	
Trade payables		25,600	
Current Tax		19,000	
Deposit liability	(20,000+10%X20,000X6/12)	21,000	
10% loan notes accrued interest (12.11%X38,000 - 4,000)		602	
			71,902
Total Equity and liabilities			316,775

(c) Kapunda Plc statement of changes in equity for the year ended 31 December 2022.

	Equity shares K'000	Share prem. K'000	Revaluation Reserve K'000	Retained earnings K'000	Total K'000
Balances at 1.1.2022 (W5)	40,000	42,500	-	33,450	115,950
Changes for the year:					
Total CI			5,000	73,223	78,223
Dividends				(1,900)	(1,900)
share Issue at FV (W5)	8,400	2,100			10,500
Bonus Issue (W5)	12,100	(12,100)			-
Balances at 31.12.2022	60,500	32,500	5,000	104,773	202,773

Workings:

W1. Cost of sales

		K'000
Per given TB		150,000
Adjustments		
Depreciation charge for the year:		
- Building	100,000/(50-5)	2,222
- Plant and equipment	15%(155,000-35,500)	17,925
Revaluation loss to report in profit or loss (W3)		(12,222)

			157,925

W2. Income Tax Expense

		K'000
Current Tax		
- Provision for liability on profits for y/e 31.12.2022		19,000
- Over provision for liability for y/e 31.12.2021		(2,800)
Increase in deferred tax liability (4,100-3,500)		600
		16,800

W3. Revaluation of Building

		K'000
Fair value to report at 31.12.2022		115,000
Carrying before 31.12.2022 revaluation (100,000X44/45)		(97,778)
Total gain on revaluation		17,222
Cost model carrying amount at 31.12.2022 (125,000X44/50)		110,000
Gain to report in profit or loss	(110,000-97,778)	12,222
Gain to report in OCI	(115,000-110,000)	5,000
		17,222

W4. PPE

		K'000
Building at FV on 31.12.2022		115,000
Plant and equipment:		
Cost	155,000	
Less acum. Depreciation (35,500+17,925)	(53,425)	
		101,575
		216,575

W5. Issue of shares

		K'000
Closing equity shares		60,500
Less bonus issue	1/(1+4)X60,500	(12,100)
Less issue at fair value	16,800X0.50	(8,400)
Opening equity shares		40,000
Share Premium at 31.12.2022		32,500
Bonus Issue (reversal of transfer to equity shares)		12,100
less Premium on issue at FV	8,400X25%	(2,100)
Opening share premium		42,500

SOLUTION THREE

Musika's statement of cash flows for the year ended 31 March 2022

		K'000
Cash flows from operating activities:		
Profit before tax		2,175
Add: depreciation expense		800
Loss on disposal of PPE		125
Amortization of development expe (w1)		375
Finance cost		75
Less grant amortization (w4)		(225)
		3,325
Increase in inventory (3,550-2,350)		(1,200)
Increase in receivables (2,475-1,700)		(775)
Increase in payables (2,188-1,825)		363
Cash generated from operations		1,713
Interest paid (w6)		(50)
Taxation paid (w7)		(325)
Net cash inflow from operating activities		1,338
Cash flows from investing activities		
Purchase of PPE (w2)		(625)
Development expenditure		(1,250)
Proceeds from disposal (w3)		50
Grant received		125
Net cash outflow on investing activities		(1,700)
Cash flows from financing activities		
Proceeds from issue of shares:		
[(1,875+875) – (1,250+250)]	1,250	
Loan received (750-500)	500	
Dividends paid (w5)	(925)	
Net cash inflow from financing activities		825
Net increase in cash and cash equivalents		463
Cash and cash equivalents at 1 April 2021		(288)
Cash and cash equivalent at 31 March 2022		175

WORKINGS (ALL AMOUNTS IN WORKINGS HAVE THREE ZEROS KNOCKED OFF, K'000)

1. **Amortization of development expenditure**

Balance b/f	750
Plus additions	1,250
Less bal c/f	1,625
Equals amortization	375

2. Carrying amount of disposed asset:

Balance b/f	4,575
Revaluation surplus	500
Cash paid to acquire	625
Less depreciation expense	(800)
Less bal c/f	(4,725)
Carrying amount of disposed	175

3. Proceeds from disposal

Proceed	50 (balancing figure)
Plus loss on disposal	125
Equals	175

4. Amortization of government grant

Balance b/f	750
Plus grant received in the year	125
Less balance c/f	(650)
Equals profit/loss amount	225

5. Dividend paid/retained earnings account

Balance of retained earnings b/f	4,000
Plus profit for the year	1,500
Plus transfer from revaluation surplus	150
Less balance c/f	(4,725)
Equals dividends paid	925

6. Interest paid

Balance b/f	12
Plus p/l charge	75
Less balance c/f	37
Interest paid	50

7. Taxation paid

Balances b/f (400+350)	750
Plus p/l charge	675
Less balances c/f (325+775)	(1,100)
Equals tax paid	325

8. Cash and cash equivalents at start and at end.

	2022	2021
Cash	175	-
Bank overdraft	-	(288)
Cash and cash equivalents	175	(288)

SOLUTION FOUR

Transaction 1

Ibili must primarily account for the acquisition of the mine shaft in accordance with IAS 16 Property Plant and Equipment. However Ibili has assumed a legal obligations to incur decommissioning costs at end of the mine's useful economic life. Therefore, IAS 37 Provisions, Contingent liabilities and Contingent Assets requires that provisions must be recognised upon meeting the recognition criteria. In this case, recognition criteria seem to be met: there is a present obligation; it is probable that there will be a transfer of economic benefits; and amounts can be reliably estimated.

The following amounts are involved:

		K'000
1. Amounts in respect property plant and equipment:		
Cost at 1.1.2022:		
Construction cost		60,000
Decommissioning provision	(30,000-20,000)X0.386	3,860
		63,860
Less accum. depreciation	63,860/10X1	(6,386)
Carrying amount at 31.12.2022		57,474

2. Provision for Decommissioning		
Carrying amount at 31.12.2022:		
- Dismantling the shaft and restoration	3,860X1.1	4,246
- Burying the mine	20,000X0.386X1.1/10X1	849
- Carrying amount to report in SFP at 31.12.2022		5,095
Less amount recognised and capitalised at 1.1.2022 (See PPE above)		(3,860)
Increase in provision to report in SPL for y/e 31.12.2022		1,235

Financial statement for the y/e 31.12.2022 extracts are as follows:

SPL	
Depreciation of mine	(6,386)
Increase in decommissioning provision	(1,235)
SFP	
Non current assets	
PPE	57,474
Non current liabilities	
Decommissioning provision	5,095

Transaction 2

Ibili must recognise revenue and profit from the contract on a percentage complete basis in accordance with IFRS 15.

Financial statements extracts for the year to 31 December 2022 will be as follows:

		K' million	
SPL			
Revenue	(working)	110	
Cost of sales	(balance)		(134)
Gross loss	(working)	(24)	
SFP			
Current assets			
Contract asset	(working)	-	
Trade receivables	(320-300)		20
Current liabilities			
Contract liabilities	(working)	40	

Workings:

1. Contract activity Percentage complete as at 31 December
   - 2021 160/(160+300)X100 = 34.78%
   - 2022 290/(290+220)X100 = 56.86%

2. Revenue for y/e 31 December 2022:

		K'million
Cumulative revenue at 31.12.2022	500X56.86%	284
Less cum. Revenue at 31.12.2021	500X34.78%	(174)
Revenue for year to 31.12.2022		110

3. Estimated total profit or loss as at 31 December:

	2021 K'm	2022 K'm
Contract price	500	500
Estimated total costs	(460)	(510)
Estimated total profit or loss	40	(10)

4. Profit or loss for y/e 31.12.2022:

Cumulative profit or loss at 31.12.2022 (Note)		(10)	
Less cum. Profit at 31.12.2021	40X34.78%		(14)
Loss for year to 31.12.2022		(24)	

5. Contract asset or liability at 31 december 2022:

	K'm
Costs to date at 31.12.2022	290
Loss to date at 31.12.2022	(10)

Progress billings to date at 31.12.2022	(320)
Contract liability at 31.12.2022	(40)

SOLUTION FIVE

(a) A financial asset will be classified and so be measured as amortized cost instrument if it is a debt instrument for which:

- The entity's business model is to receive payments that are contractual cashflows over the term to maturity.
- The contractual terms of the financial asset gives rise to cash flows that are solely payments of the principal and interest on principal amount outstanding

(b)

(i) **5% loan note**

At date of issue of 1 April 2021, the loan note will be recognized at its net proceed, that is nominal value (K24 million) less issue costs (K0.6 million) less discount on issue (2%* K24 million=K0.48 million) giving K22.92 million net fair value. At 31 March 2022, one year from issue date, the loan will be amortized by increasing its initially recognized amount of K22.92 million by the effective interest of K1.834 (8%*K22.92) and will be reduced by amount of coupon paid of K1.2 million (5%*K24,000) giving liability at 31 March 2022 of K23.553 (K22.92 m+1.833-K1.2).

(ii) **Convertible loan note**

These are accounted for initially at fair value in which the split accounting method is used to ascertain the fair values. Splitting is done because at the date of issue of such an instrument, it is not known whether the holder will choose to receive cash or convert the instrument into shares and so both components are recognized.

In the case of Mukela Ltd, the splitting on the date of issue will be as follows:

	K'000
Present value of proceeds (15,000*0.794)	11,910
Present value of interest (3%*15,000)*2.577	1,160
Liability component	13,070
Equity option (balancing figure)	1,930
Proceeds	15,000

At initial recognition, on date of issue, liability component will be recognized at K13.070 million while the convertible equity will be recognized at K1.930 million which are the fair values of the slip instruments.

Subsequently, the equity option amount is not subject to variation and remains recognized in other components of equity at the same value until conversion but the liability component will be held at amortized cost until redemption.

The method for re-measuring the liability component is therefore called effective interest method that is used by increasing the liability with effective interest rate and decreasing it with nominal interest rate.
Below is amortized value of liability:

	Balance b/f	effective interest 8%	interest paid 3%	bal c/f
	K'000	K'000	K'000	K'000
Y/E 31/3/22	13,070	1,046	(450)	13,666

For the year ended 31 March 2022, the loan portion will be recognized at K13.666 million after one-year amortization in the statement of financial position, whereas the finance cost in the statement of profit or loss will be recognized at 1.046 million. Equity option of K1.930 million will be shown in statement of financial position at same amount of initial recognition as it is not subject to re-measurement.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA APPLICATION ADVANCED DIPLOMA IN ACCOUNTANCY

CA 2.2: MANAGEMENT ACCOUNTING

TUESDAY 21 MARCH 2023

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

INSTRUCTIONS TO CANDIDATES

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

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

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

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

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

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

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

8. Present legible and tidy work.

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

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

SECTION A

This question is compulsory and must be attempted

QUESTION ONE – COMPULSORY

Tough Times Ltd (TT Ltd) has been producing Product Z over the years. The cost per unit for this product is as follows:

	K
Direct materials: 10 Kg at K50 per Kg	500
Direct labour: 5 hrs at K80 per hour	400
Direct expenses	300

Production fixed overheads are budgeted at K200,000 per month and, will be absorbed into cost of production on the basis of direct labour hours. The budgeted direct labour hours are 10,000 per month.

For the year 2022, the company plans to produce 2,000 units of Product Z per month. However, the production plant has capacity to produce up to 3,000 units per month. The company estimates that it will sell all the quantities produced during the year but it anticipates that 20% of the production for the month of December will remain unsold due to reduced seasonal demands. There were no opening inventory of Product Z at the start of the year. The company has estimated that there will be 8,000 Kg and 10,000 Kg of raw materials at the start and end of the year, respectively.

The company makes a profit of 20% on full production cost from Product Z. Towards the end of the year in 2021, a competitor who sells a similar product as Product Z reduced the selling price of the product by 6%. In order to remain competitive on the market, Management made a decision during the budgeting process for the year 2022 to reduce the mark-up on Product Z by 5%.

TT Ltd conducted a market research on the sensitivity of the selling price which revealed that if the selling price is set above the budgeted selling price, monthly sales demand would fall by 250 units for each K50 increase above the budgeted selling price. Similarly, if the price is set below the budgeted selling price, monthly sales demand would increase by 250 units for each K50 reduction in price below the budgeted selling price.

The Management Accountant of TT Ltd has advised that other than using the full cost-plus pricing approach, the company could also consider using the marginal cost-plus pricing or the target cost pricing approach.

Required:

(a) Calculate the selling price of Product Z based on full cost-plus pricing approach. (5 marks)

(b) List any five (5) reasons why the full cost-plus pricing approach is the most predominately used approach. (5 marks)

(c) Differentiate between marginal cost-plus pricing and target cost pricing approaches, and identify any three (3) advantages of each pricing approach. (8 marks)

(d) Prepare for the year 2022 the following:

(i) Sales budget for Product Z in kwacha (3 marks)
(ii) Direct materials purchases budget in Kwacha (3 marks)
(iii) Direct labour budget in Kwacha (2 marks)
(iv) Budgeted operating statement on the basis of absorption costing. (4 marks)

(e) Based on the information on the market research on the sensitivity of the selling price, calculate the selling price which would maximize TT Ltd's profit for 2022. (5 marks)

(f) During the month of July 2022, the company was approached by a customer to produce a specialized Product W. The quantities of Product W requested to be produced were 1,000 units. The customer is offering K100 per unit of Product W. TT Ltd has estimated that the variable cost of producing Product W is K70 per unit. If the special order is accepted the monthly fixed production costs will increase by 10%.

Advise whether TT Ltd should accept the order for producing Product W, ignoring non-financial factors, and clearly showing the calculations upon which the advice is based. (5 marks)

[Total: 40 Marks]

SECTION B

There are four (4) Questions in this Section. Attempt any Three (3) questions.

QUESTION TWO

The following budgeted information relates to Mac Top Plc (MT Plc) for the year 2022:

	Products	
	X	Z
Sales (units)	8,000	7,000
Production (units)	10,000	8,000
Selling price per unit in kwacha	5,000	8,000
Variable cost per unit in kwacha	3,200	5,420
	Hours	Hours
Machine department (machine hours per unit)	3	6
Assembly department (direct labour hours per unit)	5	4

Production overheads were to be allocated and apportioned to the product costs as follows:

- Machine department at K150 per machine hour
- Assembly department at K120 per direct labour hour

The Management Accountant of MT Plc has ascertained that the above overheads could be re-analysed into cost pools, together with their cost drivers and the respective cost driver quantities for the year as follows:

Cost pool	*K*	Cost driver	*Cost driver quantities*
Machining services	8, 190, 000	Machine hours	78, 000
Assembly services	7, 298, 000	Direct labour hours	82, 000
Set-up costs	597, 000	Set-ups	1, 194
Order processing	3, 555, 000	Customer orders	7, 500
Purchasing	1, 900,000	Suppliers orders	2, 500
	21, 540,000		

The Management Accountant has also provided the following estimates for the year:

	Products	
	X	Z
Number of set-ups	594	600
Customer orders	3,500	4,000
Suppliers orders	1,000	1,500

Required:

(a) Calculate the cost per unit using:

(i) Absorption costing (3 marks)
(ii) Activity based costing (11 marks)

(b) Prepare the budgeted profit statement by product for the year using:

(i) Absorption costing (3 marks)
(ii) Activity based costing (3 marks)

[Total: 20 Marks]

QUESTION THREE

Uptown United is a Zambian football team based in Lusaka and plays football in the MTN/FAZ super league. The club is sponsored by one of the companies in the manufacturing sector. Over the years, the club has experienced a lot of liquidity problems arising from uncoordinated cash inflows and outflows. In view of this problem, the sponsorship agreement has been revised to provide for the club to receive gross sponsorship income that is equivalent to its cash flow deficit over a six (6) months' period in the month in which the initial deficit arises plus Value Added Tax at 16%, which is payable on sponsorship income.

The club has recruited you as its Financial Accountant and one (1) of the targets the club's CEO has given you is to prepare a cash flow forecast for the six (6) months' period from July to December 2022 to be used to request for the sponsorship income. The bank balance on 30 June 2022 was K3 million. The projected cash inflows and outflows for the Club for the period is outlined below:

1) Once the 2022/2023 football season commences in mid-August 2022, the club expects to realise from gate takings on average K50, 000 per home game. Each month the club will play two (2) home and two (2) away games except in August 2022 when only one (1) home and one (1) away games will be played. All games in a month will have been played by 28 of each month.

2) In an effort to improve the performance of the club in the 2022/2023 season, the Board of the club resolved to acquire one (1) striker who was the top scorer from the Division 1 National league. The striker will cost the club K500,000 to acquire in July 2022.

3) In line with the FAZ regulations on the registration of new players, the Club will pay 20% of the purchase fee of the player to FAZ in August 2022.

4) The Club expects to spend on average K40,000 on each home game as game hosting costs.

5) The gross monthly salaries of the club for both the players and administration staff have been K1,000,000 per month but effective August 2022, they will be increased to K1,200,000 per month. Winning bonuses are anticipated at K90,000 per game and the club expects to win all the games except for one (1) in October and one (1) in December. It is estimated that statutory obligations are expected to be 40% of the gross salaries plus winning bonuses per month. The net pay is payable on 30 of each month, while statutory obligations are payable by the 10of the following month.

6) Quarterly operating expenses have been budgeted at K360,000 and payable to the Suppliers of operating expenses at end of each quarter. This amount is inclusive of K40,000 monthly amortisation of players' acquisition cost.

Required:

(a) Prepare a cash flow forecast for six (6) months from July to December 2022 in order to determine the cash flow deficit for the period. (17 marks)

(b) Calculate the amount of gross sponsorship income that the club should receive in order to meet its cash flow deficit for the six (6) months' period and remain with K102,000 balance at end of the year. Also indicate the month when the sponsorship funding should be received. (3 marks)

[Total: 20 Marks]

QUESTION FOUR

Tiger Ltd manufactures Product X and has the following budgeted manufacturing costs:

	K
Direct materials: A	200
B	125
Direct labour: 5 hours at K50 per hour	250
Variable overheads: 5 hours at K20 per hour	100
Fixed overheads: 50% of direct labour cost	125
Total cost	800

Tiger Ltd has been approached by two (2) customers:

(i) Customer 1 has offered to supply product X at a price of K750 per unit
(ii) Customer 2 would like a special job to be done for him, and is willing to pay K100,000 for it.

You ascertain the following:

1. All fixed production overheads are committed costs and hence none is attributed to Product X.
2. The special job will use the same types of direct materials as those used in producing Product X (i.e. material A and B)
3. 400 Kg of material A will be required to meet the production requirements of the special job. The 400 kg of material A are already in inventory and they will require to be replaced at a cost of K100 per kg if used in this special job. The 400 kg of material A cost K80 per Kg last year.
4. Material B is not in inventory and hence will have to be bought specifically for the special job at K150 per Kg. 100 Kg of Material B will be required.
5. Direct labour costing K60 per hour will need to be recruited for the special job. 50 hours will be required for the job.
6. A special machine will have to be purchased at K60,000 and then disposed of for K34,000 at end of the special job as it will have no other use to Tiger Ltd after the special job has been completed.
7. The Company is currently operating at a point below the break-even and also has capacity to accommodate the special job.

Required:

(a) Considering the cost criteria only, advise Tiger Ltd whether it should purchase Product X from Customer 1 or continue manufacturing it. (4 marks)

(b) Explain any two (2) cost considerations and any two (2) non-financial factors that Tiger Ltd would consider in deciding whether to make or buy Product X from Customer 1. (4 marks)

(c) Calculate the relevant cost for the special job requested by Customer 2 and clearly explain why you have included the cost in the calculation. Advise whether Tiger Ltd should accept the order and justify your advice. (10 marks)

(d) State any two (2) types of information that a management accounting system would be able to provide to a company like Tiger Ltd. (2 marks)

[Total: 20 Marks]

QUESTION FIVE

You are the Management Accountant of Pipeline Ltd, a manufacturing company based in Lusaka. The company recently employed a new CEO on a five (5) year contract period. The new CEO has approached you seeking some explanation on some of the management accounting terminology he has come across. He has therefore asked you to prepare a report to him in which you are to explain some of the identified management accounting terminologies and issues.

Required:

Prepare a report to the CEO of the company in which you:

(a) Explain how costs can be classified according to the function that causes the cost, giving an example of each classification. (10 marks)

(b) Explain what is meant by a favourable material mix variance and an adverse material yield variance. Further explain the relationship between the two (2) said variances if any. (4 marks)

(c) Explain the difference between:

(i) the primary objective of a profit seeking organisation and that of a not-for-profit organisation. (2 marks)

(ii) a production cost centre and service cost centre. (2 marks)

NB: Appropriate format of the report will attract 2 marks.

[Total: 20 Marks]

END OF PAPER

CA 2.2: MANAGEMENT ACCOUNTING SUGGESTED SOLUTIONS

SOLUTION ONE

(a) Selling price of Product Z based on full cost-plus pricing approach

	K
Direct materials: 10 Kg at K50 per Kg	500
Direct labour: 5 hours at K80 per hour	400
Direct expenses	300
Variable Cost	1, 200
Production overheads (5 hours x K200, 000/10, 000 hrs)	100
Full production cost	1, 300
Profit mark-up [K1, 300 x (20% - 5%)]	195
Selling price per unit of Product Z	1, 495

(b) Reasons why the full cost-plus pricing approach is the most predominately used approach.

(i) Planning and use of scarce capital resources are easier.
(ii) Assessment of divisional performance is easier.
(iii) It emulates the practice of successful large companies.
(iv) Organisations fear government action against 'excessive' profits.
(v) There is a tradition of production rather than of marketing in many organisations.
(vi) There is sometimes tacit collusion in industry to avoid competition.
(vii) Adequate profits for shareholders are already made, giving no incentive to maximise profits by seeking an 'optimum' selling price.
(viii) Cost-based pricing strategies based on internal data are easier to administer.
(ix) Over time, cost-based pricing produces stability of pricing, production and employment.

(c)

(i) *Marginal cost plus* pricing a method of determining the sales price by adding a profit margin on to either marginal cost of production or marginal cost of sales whereas *target cost pricing* is a pro-active cost control system, which determines the target cost by deducting the target profit from a competitive market price.

(ii) *Advantages of Marginal cost-plus pricing approach*

1. It is a *simple and easy* method to use.
2. The *mark-up percentage can be varied*, and so mark-up pricing can be adjusted to reflect demand conditions.
3. It *draws management attention to contribution,* and the effects of higher or lower sales volumes on profit, and hence it helps to create a better awareness of the concepts and implications of marginal costing and cost-volume-profit analysis
4. In practice, mark-up pricing is used in businesses *where there is a readily-identifiable basic variable cost.* For example, in retail industries, it is quite common for the prices of goods in shops to be fixed by adding a mark-up to the purchase cost.
5. *Increase* ***market penetration*** - Marginal cost pricing can be used to initially gain entry into a new market by attracting new price-conscious buyers.

6. *Eliminate* ***excess capacity or inventory*** - Marginal cost pricing is useful to move excess inventory or capacity quickly.
7. *Smooth* ***fluctuations in demand*** - If demand slows down, a company can temporarily reduce prices to attract bargain hunters.
8. *Stay* ***price-competitive in the short-term*** **-** Marginal cost pricing is a valuable tool to use when competitors lower their prices in an attempt to gain market share.

Advantages of Target cost pricing approach

(i) It encourages the management to continually improve processes and innovate to gain a competitive cost advantage.
(ii) The approach is more customer-centric as the company creates the products from the customers' expectations. This expectation could be from a price or feature perspective or both. Thus, the value of the product is more to the customers,
(iii) The approach helps in creating economies of scale.
(iv) The company automatically becomes proactive in converting new market opportunities into real savings. Hence, it assists the company in delivering the best value for money to the stakeholders.

(d) **Budgets for 2022**

(i) **Tough Times Ltd**
Sales budget for the year 2022

Budgeted sales in units (2, 000 per month x 12 months)	24, 000
Less: closing inventory (2, 000 x 20%)	(400)
	23, 600
x by Selling Price per unit [W (a)]	1, 495
Budgeted Sales in Kwacha	35,282,000

(ii) **Tough Times Ltd**
Direct materials purchases budget for the year 2022

Production requirements	
(10Kg/unit x 24 000 units)	240, 000
Less: opening inventory	(8, 000)
	232, 000
Add: closing inventory	10, 000
Budgeted Kg of Raw materials	242,000
x Purchase price/kg	50
Direct Materials Budget in Kwacha	12,100,000

(iii) **Tough Times Ltd**
Direct labour budget for the year 2022

Production requirements	
(5 hours/unit x 24 000 units)	120, 000
x Direct labour rate/hour	80
Direct Materials Budget in Kwacha	9,600, 000

(iv) **Tough Times Ltd**
Absorption costing budgeted operating statement for the year 2022

	K'000	K'000
Marks		
Sales (23, 600 x K1, 495)		35, 282
Cost of sales:		
Opening Inventory	0	
Production (24 000 x K1, 300)	31, 200	
Closing inventory (400 x K1, 300)	(520)	
		30, 680
Budget Profit for the year		4, 602

(e) **Selling price that would maximise Tough Times Ltd 's profit for 2022**

At the budgeted selling price of K1, 495 per unit, the unit contribution is K(1, 495 – 1, 200) = K295. Each K50 increase (or decrease) in price would raise (or lower) the unit contribution by K50. The total contribution is calculated at each selling price by multiplying the unit contribution by the expected sales volume. Profit is maximized at the price that maximizes total contribution as per the calculation below.

	Unit Price	Unit Contribution	Sales volume	Total Contribution
	K	**K**	**Units**	**K**
Current	1, 495	295	2, 000	590, 000
Increase price				
	1,545	**345**	**1, 750**	**603, 750**
	1, 595	395	1, 500	592, 500
Reduce price				
	1, 445	245	2, 250	551, 250
	1, 395	195	2, 500	487, 500

Therefore, total contribution would be maximised, and therefore profit maximised, at a selling price of K1, 545 per unit, and monthly sales demand of 1,750 units.

(f) **Accepting or rejecting the order from a customer**

Since the Company has spare capacity, the relevant cost in making the decision are the variable cost of the order and the incremental fixed costs arising from the order. These costs must be lower than the selling price being offered by the customer if the order is to be accepted.

Expected profit/loss from the order

	K
Sales (100 x K100)	100, 000
Variable cost (100 x K70)	(70, 000)
Contribution	30, 000
Additional fixed production costs [K200, 000 x 10%]	(20, 000)
Profit	10, 000

Advice
The company should ACCEPT the order since the profits will increase by K10, 000 if Product W is produced for the customer.

SOLUTION TWO

(a) **Cost per unit**

(i) **Absorption costing**

	Products	
	X	Z
Variable cost	3, 200	5, 420
Production overheads:		
Machine department (machine hours/unit x OAR/unit)	450	900
Assembly department (direct labour hours/unit x OAR/unit)	600	480
Production cost per unit	4, 250	6, 800

(ii) **Activity Based costing**

	Products	
	X	Z
Variable cost	3, 200	5, 420
Production overheads (w1):		
Machine department (machine hours/unit x OAR/unit)	315	630
Assembly department (direct labour hours/unit x OAR/unit)	445	356
Set-up costs (No. of set-ups x OAR/set-up)/units produced	29.7	37.5
Order processing (customer orders x OAR/order)/units produced	165.9	237.0
Purchasing (suppliers orders x OAR/order) /units produced	76.0	142.5
Production cost per unit	4, 231.6	6, 823

Workings

1. Overhead absorption rates per cost pool

Cost pool	K	Cost driver	Quantities	Cost driver rates
Machining services	8, 190, 000	Machine hours	78, 000	K105/machine hr
Assembly services	7, 298, 000	Direct labour hours	82, 000	K89/labour hr
Set-up costs	597, 000	Set-ups	1, 194	K500/set-up
Order processing	3, 555, 000	Customer orders	7, 500	K474/order
Purchasing	1, 900, 000	Suppliers orders	2, 500	K760/order

(b) **Profit Statements**

(i) **Mac Top Plc**
Absorption costing budgeted profit statement for the year 2022

	Products X	**Products Z**
	K'000	**K'000**
Sales (units x selling price)	40, 000	56, 000
Cost of sales:		
Production (units x cost/unit (w1))	(42, 500)	(54, 400)
Closing inventory (units x cost/unit)	8, 500	6, 800
Budget Profit for the year	6, 000	8, 400

(ii) **Mac Top Plc**
Activity based costing budgeted profit statement for the year 2022

	Products X	**Products Z**
	K'000	**K'000**
Sales (units x selling price)	40, 000	56, 000
Cost of sales:		
Production (units x cost/unit (w2))	(42, 316)	(54, 584)
Closing inventory (units x cost/unit)	8, 463	6, 823
Budget Profit for the year	6, 147	8, 239

SOLUTION THREE

(a) **Uptown United**
Cash flow forecast for six months from July to December 2022

	July K'000	Aug K'000	Sep K'000	Oct K'000	Nov K'000	Dec K'000
Receipts (a)						
Gate takings (w1)		**50**	**100**	**100**	**100**	**100**
Total Receipts	**0**	**50**	**100**	**100**	**100**	**100**
Payments (b)						
Purchase of player	**500**					
FAZ registration (20% x 500)		**100**				
Game hosting costs (w2)		**40**	**80**	**80**	**80**	**80**
Net pay (w3)	**600**	**828**	**948**	**882**	**948**	**882**
Statutory obligations (w3)	**400**	**400**	**552**	**632**	**588**	**632**
Operating expenses (w5)			**240**			**240**
Total payments	**1,500**	**1,368**	**1,820**	**1,594**	**1,616**	**1,834**
	-	**-**	**-**	**-**	**-**	**-**
NET	**1500.00**	**1318.00**	**1720.00**	**1494.00**	**1516.00**	**1734.00**
Opening Cash balance	**3,000**	**1,500**	**182**	**-1,538**	**-3,032**	**-4,548**
Net cash flow [(a) – (b)]	**-1,500**	**-1,318**	**-1,720**	**-1,494**	**-1,516**	**-1,734**
Closing Cash balance	**1,500**	**182**	**-1,538**	**-3,032**	**-4,548**	**-6,282**

(b)

(i) *Amount of sponsorship income to be received by the club*

	K'000
Cash flow deficit by December 2022	6, 282
Add: Required balance at end of December 2022	102
Total net cash required	6, 384
Total gross income to be received (6, 384 x 1.16)	**7, 405.44**

(ii) *When the sponsorship income should be received*

The amount should be received in September 2022, when the initial deficit occurred.

Workings

1. Monthly gate takings

	July	Aug	Sept	Oct	Nov	Dec
	K'000	K'000	K'000	K'000	K'000	K'000
Average gate takings per game		50	50	50	50	50
x Number of home games per month	0	1	2	2	2	2
Gate takings	0	50	100	100	100	100

2. Game hosting costs

	July	Aug	Sept	Oct	Nov	Dec
	K'000	K'000	K'000	K'000	K'000	K'000
Average cost per game	40	40	40	40	40	40
x Number of home games per month	0	1	2	2	2	2
Game hosting cost per month	0	40	80	80	80	80

3. Salaries and statutory obligations

	June	July	Aug	Sept	Oct	Nov	Dec
	K'000	K'000	K'000	K'000	K'000	K'000	K'000
Gross salaries	1,000	1,000	1,200	1,200	1,200	1,200	1,200
Winning bonuses (w4)			180	360	270	360	270
Gross pay	1,000	1,000	1,380	1,580	1,470	1,580	1,470
Statutory obligations (40% x gross)	400	400	552	632	588	632	588
Net pay payable 30th of each month	600	600	828	948	882	948	882
Statutory oblig. payable following month	400	400	400	552	632	588	632

4. Wining bonuses

	July	Aug	Sept	Oct	Nov	Dec
	K'000	K'000	K'000	K'000	K'000	K'000
Average bonus per game		90	90	90	90	90
x Number of games to be won per month	0	2	4	3	4	3
Wining bonuses	0	180	360	270	360	270

5. Quarterly operating expenses

Quarterly operating expenses	360, 000
Less: amortisation (40 000 x 3)	120, 000
Operating expenses payable at end of each quarter	240, 000

SOLUTION FOUR

(a) **Make or buy option**

The relevant costs of a make or buy decision are the differential costs between the make and buy (purchase price) options. The differential costs between the make or buy option for Product X are the purchase price from customer 1 and the relevant variable cost of producing Product X. In the case of Tiger Ltd, there are no savings in fixed costs as all fixed production costs are committed costs. The differential costs are as follows:

		K
Purchase price from Customer 1 per unit		750
Variable cost of producing Product X per unit:		
Direct materials: A	200	
B	125	
Direct labour	250	
Variable overheads	100	
		675
Saving if Tiger Ltd manufactured Product X		75

Advice

Tiger Ltd should NOT ACCEPT the order since the company would spend an additional cost of K75 per unit if Product X was bought from the customer.

(b) **Cost considerations and non-financial factors to consider in a make or buy option from customer 1**

Cost factors

(i) The relevant costs of a make or buy decision are the differential costs between the purchase price from customer 1 and the relevant variable cost of producing Product X.

(ii) The relevant variable costs of producing Product X must be higher than the price being offered by the customer if the offer is to be accepted.

(iii) Fixed costs are irrelevant for such a decision unless they represent savings in directly attributable fixed costs arising from purchasing from an outside supplier.

(iv) Since the company is operating below the breakeven point, the price from the customer should provide an additional contribution towards the fixed costs and hence reduce the existing loss that Tiger Ltd is making.

Non-financial factors

These would include:

(i) What alternative use will the company have for the resources that will not be ultilised into production? Can the resources used to make product X be transferred to another activity which will save cost or increase revenue?

(ii) Would the decision to subcontract affect contractual or ethical obligations to employees?

(iii) Would customer 2 be reliable with delivery times and hence not cause a product X shortfall for Tiger Ltd, which if it happens might cause customer dissatisfaction?

(iv) Would customer 2 be reliable with product quality and hence not affect customer demand for Product X?

(v) Would customer 2 be reliable in terms of price stability and hence not affect customer demand for Product X?
(vi) Does Tiger Ltd wish to be flexible and maintain better control over operations by making everything itself?

(c) The relevant costs are:

	K
Material A (400Kg x K100/Kg)	40, 000
Material B (100Kg x K150/Kg)	15, 000
Direct labour (50 hours x K60/hour)	3, 000
Net cost of Machinery (K60, 000 – K34, 000)	26, 000
Total relevant cost	84, 000

Explanations

(i) The relevant cost for Material A is the replacement cost* of K40, 000. The purchase cost of K32, 000 (400Kg x K80/Kg) is a sunk cost and irrelevant to the decision.
(ii) The actual cost for Material B of K15, 000 represents the incremental cost.
(iii) The relevant cost for direct labour is the hiring cost of K3, 000 which represents an incremental cost.
(iv) The net cost of purchasing the Machinery of K6, 000 (i.e. K60, 000 – K54, 000) represents the additional cost associated with the special order.

*scrap value

Advice

Tiger Ltd should ACCEPT the order since the losses will decrease by K16, 000 (i.e. K100, 000 – K84, 000) if the special order from the customer is accepted.

(d) A management accounting system would provide Tiger Ltd the following information:

(i) Financial information
(ii) Non-financial information
(iii) A combination of financial and non-financial information

SOLUTION FIVE

Pipeline Ltd

To: The Chief Executive Officer

From: The Management Accountant

Date: 20th July 2022

Subject: Explanation on some of the identified management accounting terminologies and issues

Introduction
This report gives explanations on some of the identified management accounting terminologies and issues.

(a) **Classification of cost according to the function that causes the cost**
In a manufacturing business, the main functions that causes the cost are production, administration, selling and distribution, research and development, and financing.

(i) *Production costs* are the costs which are incurred by the sequence of operations beginning with the supply of raw materials, and ending with the completion of the product ready for warehousing as a finished goods item. Examples of such a cost are raw materials, factory labour, packaging costs related to 'primary' packing etc.
(ii) *Administration costs* are the costs of managing an organisation, that is, planning and controlling its operations, but only insofar as such administration costs are not related to the production, sales, distribution or research and development functions. Examples include, administrative staff salaries, administration rent and rates, etc.
(iii) *Selling and distribution costs or marketing costs*, are the marketing costs of products and delivery costs of goods sold. Examples included advertising, salary and commission of salesmen, delivery expenses.
(iv) *Research and development costs – research costs* are the costs of searching for new or improved products, whereas *development costs* are the costs incurred between the decision to produce a new or improved product and the commencement of full manufacture of the product. Examples include, wages of researchers, computer software, testing expenses etc,
(v) *Financing costs* are costs incurred to finance the business such as loan interest.

(b) **Favourable material mix variance and Adverse material yield variance**
A mix variance occurs when the materials are not mixed or blended in standard proportions whereas a yield variance arises because there is a difference between what the input should have been for the output achieved and the actual input.

(i) *A favourable material mix variance* would suggest that a higher proportion of a cheaper material is being used instead of a more expensive one, hence reducing the overall average cost per unit.

(ii) *An adverse material yield variance* would suggest that less output has been achieved for a given input, i.e. that the total input in volume is more than expected for the output achieved.

(iii) A *favourable* material mix variance occurs when the actual mix of materials is cheaper than the standard mix. As a consequence of using a cheaper mix of materials, it is possible that the output/yield will be less than the standard output or simply put, a favourable material mix variance may lead to an adverse material yield variance.

(c) **Objectives of Organisations and Cost Centres**

(i) The primary objective of a profit seeking organisation is to maximise shareholder wealth whereas the primary objective of many not for profit organisations is the effective provision of a service, not the creation of profit.

(ii) A *cost centre* is an area of the business such as the factory or canteen, for which costs are incurred that cannot be directly attributed to the cost units. There are two types of cost centres - production cost centres and service cost centres. *Production cost centres* are those that are directly involved in the production or provision of the cost unit, such as the factory, whereas *service cost centres* are those cost centres that do provide a service to the production cost centres such as the canteen or materials handling.

I would be glad to provide any further clarifications should you require so.

Signed: ……………………………………………….
Management Accountant

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA APPLICATION ADVANCED DIPLOMA IN ACCOUNTANCY

CA 2.3: AUDITING PRINCIPLES AND PRACTICE

THURSDAY 23 MARCH 2023

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

INSTRUCTIONS TO CANDIDATES

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

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

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

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

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

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

7. All workings must be done in the answer booklet.
8. Present legible and tidy work.

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

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

SECTION A

This question is compulsory and must be attempted

<u>QUESTION ONE – COMPULSORY</u>

Cairo Plc is a subsidiary of a UK based parent company, which has been operating in Zambia for ten (10) years. The company is in the manufacturing of pesticides used in the agricultural industry. There are strict regulations regarding the disposal of waste from the manufacturing processes and the disposal of expired chemicals no longer fit for use. The Zambia Environmental Management Agency (ZEMA) is the regulator of matters with regards to the environment.

The UK based parent company of Cairo Plc is under pressure from environmental pressure groups in the UK to require that the parent company should ensure that all of its subsidiaries based in countries where environmental matters are not considered important meet the same standards as those of the parent company. Failure to do so will result in the environmental campaigners lobbying for the boycott of the products of the parent company in the UK which will have going concern implications for the company.

The parent company has, in the current year, instructed all its subsidiaries based overseas to meet agreed social targets as well as environmental performance indicators. They will all be required to prepare social and environmental reports which should be subject to audits by the company's statutory auditors. Non-compliance with the new regulations may result in the parent company divesting from the countries affected. Investors in listed companies are increasingly considering the attitude of companies in which they intend to buy shares, on the environment.

A board meeting of the Board of Directors of Cairo Plc was called to consider the new guidelines by the parent company and other matters relating to the audit of the financial statements for 2021. It was resolved at this meeting that the statutory auditors should conduct social and environmental audits of the reports for the year 2021. Two (2) years ago the company set targets with regards to its social responsibilities and environmental matters. The company adopted a policy of causing no harm to people and the environment through its activities. The Health and Safety Director raised concern on the disposal of hazardous materials by the manufacturing department. He informed the board that the regulators raised concerns after they received complaints from the community within which the company operates about hazardous substances disposed of in the nearby drainage. This was reported by a leading newspaper who quoted a news item on the main news the previous night.

You work for Soft Chartered Accountants as Audit Senior and you have been assigned to the audit of the financial statements of Cairo Plc for the year 2021. You have two (2) Senior Audit Assistants, one (1) will be assigned to the audit of the financial statements for the year ended 31 December 2021 and the other will be assigned to the audit of the social and environmental reports for the same period. The Senior Audit Assistant assigned to the audit of financial statements will be performing work on subsequent events for the first time. You will need to give him clear instructions regarding work that should be performed subsequent to the period end. The approved audit plan shows that the audit report should be signed by 13 March 2022 and the financial statements issued on 28 March 2022. The Annual General Meeting at which the financial statements will be approved is planned for 8 April 2022. On 20 March 2022, after the audit report was signed but before the issue of the financial statements, the audit team discovered an error in the sales figure for the year. If the error remained uncorrected, this would impact on the audit report. A request to management to correct the error was rejected.

During the year, Waterloo Plc a company in the same industry as Cairo Plc offered Soft Chartered Accountants to be its auditors for the next three (3) years. Waterloo Plc controls 35% of the market of agricultural pesticides while Cairo Plc holds 40% market share. Your firm, Soft Chartered Accountants, previously bought a significant number of shares in Waterloo Plc and it still holds these shares.

You performed analytical procedures as part of planning the audit and you observed that the overheads increased significantly when compared to the previous year. You noted a 30% increase in the legal expenses amount in the current year. On further inquiry, you establish that the increase was much higher except that a significant amount was transferred by way of a journal voucher to the sundry expenses account.

Required:

(a) (i) Explain the meaning of social and environmental audits. (3 marks)

(ii) Identify and explain three (3) pressures that may necessitate Cairo Plc to have an environmental audit performed. (3 marks)

(b) (i) Explain three (3) distinguishing factors between a reasonable assurance engagement and a limited assurance engagement. (6 marks)

(ii) State the type of engagement between Soft Chartered Accountants and Cairo Plc. (2 marks)

(c) Identify and explain four (4) factors that may be indicative of non-compliance with laws and regulations in the audit of the financial statements of Cairo Plc. (6 marks)

(d) Explain the conflicts of interest that exist in the audit of the financial statements of Cairo Plc and suggest action that should be taken to mitigate the conflicts of interest. (8 marks)

(e) (i) Explain the duty of the statutory auditor between 31/12/21 and 08/04/2022 the date of the approval of the financial statements by members of Cairo Plc. (8 marks)

(ii) Advise the audit team on the action that should be taken in view of the refusal by management to amend the financial statements regarding the event of the 20 March 2022. (4 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt any THREE (3) questions in this section.

<u>QUESTION TWO</u>

You work for Monde Chartered Accountants, a firm of auditors as an Audit Senior. You have been assigned to the audit of the financial statements of Mukuba Ltd for the year ended 30 June 2022.

Your firm of accountants has been auditor of Mukuba Ltd for five (5) years. In order to ensure that ethical principles are followed by your firm, Chanda was appointed Partner in Charge of client acceptance. Among his responsibilities in his new role is to ensure that ethical principles are complied with by all staff. He will also be responsible for client acceptance and continuation to ensure that all professional requirements are followed. At a recent meeting with staff, the Managing Partner expressed concern that more than 50% of the firm's clients have been clients for periods ranging ten (10) to fifteen (15) years. He expressed concern regarding matters to do with independence of the firm. He has requested that the partner responsible for client acceptance and continuation should ensure that quality control guidelines on client acceptance and continuation in ISA 220 *Quality Control for an Audit of Financial Statements* are complied with.

During a pre-audit meeting with the management of Mukuba Ltd, The Chief Executive Officer expressed concern on the increase in the audit fee for the current year. The Engagement Partner explained that a lot of work is carried out in conducting effective audits. The Chief Executive Officer argued that the audit report does not suggest that a lot of work is done in reaching an opinion. He argued that throughout the previous four (4) years, the audit firm issued unmodified opinions. The Engagement Partner explained that the auditors report by exception and that there are a number of matters that are implied and not expressly referred to in an unmodified audit opinion. The views of the Chief Executive Officer did not go well with the Engagement Partner considering the fact that the auditors have in the past had to perform additional audit procedures in view of the unreliable written representations from management. Mukuba Ltd is owing the audit fees for the past two (2) years.

The Engagement Partner requested you to ensure that there is communication throughout the audit with the management of Mukuba Ltd. He requested the audit team to perform tests of controls in all the major business cycles and that in order to cut costs, directional testing should be used in this audit.

The following notes were extracted from the sales systems notes contained in the working papers for the previous audit. You have concluded that the system has not changed this year.

1. Mukuba Ltd makes cash and credit sales to its customers. Cash receipts are banked the following day of receipt. Credit customers have credit limits depending on their credit rating and are given 30 days credit to pay.
2. Mukuba Ltd has a computerized sales system and customer details for credit customers are added and changed by the Sales Assistant.
3. Deliveries to credit customers are made by in-house drivers who return with delivery documents once deliveries have been made.

4. The company issues credit notes to correct errors in invoicing and for any goods returned by customers.

Required:

(a) Suggest four (4) control activities that should be implemented in the sales system of Mukuba Ltd and for each control activity explain the control objective. (8 marks)

(b) Explain the principle of directional testing in the audit of transactions and balances in the audit of the financial statements of Mukuba Ltd. (4 marks)

(c) Explain four (4) matters that Monde Chartered Accountants should consider in assessing the continuance of the audit engagement of Mukuba Ltd in accordance with the provisions of ISA 220 *Quality Control for an Audit of Financial Statements*. (4 marks)

(d) State four (4) matters that are implied in an unmodified audit opinion. (4 marks)

[Total: 20 Marks]

QUESTION THREE

Muchinji Plc is one (1) of your firm's audit clients. You are an Audit Assistant and part of the audit team assigned to conduct the audit of the financial statements of Muchinji Plc for the year ended 31 March 2022.

Muchinji Plc is a mining company involved in the mining of coal used in the generation of electricity. The company has material quantities of work in progress and finished products at the period end. Muchinji Plc engages a specialist company to value the inventory at the period end. The bulk of the coal produced is for own use in the generation of electricity and surplus production is sold on credit to other companies generating electricity. The age analysis at the period end shows an increase in debt over three (3) months old. In the current year, the company issued 10,000 K10.00 shares at an issue of price of K12.50.

You have been assigned to carry out risk assessment procedures as part of the planning of the audit of the financial statements of Muchinji Plc. This is the first time that your firm will be auditing Muchinji Plc. Except for the Audit Manager; the rest of the audit team does not have practical experience in auditing mining companies. In gaining an understanding of the entity, you establish that all the company systems are computerized and integrated.

The Audit Manager suggested that in order to obtain sufficient appropriate evidence, the audit team should make use of Computer Assisted Audit Techniques. This will require that the audit team should assess the effectiveness of the general and application controls in use. Muchinji Plc is concerned about the continuity of activities and on a regular basis saves the programs in use and processed information offsite. This is in addition to checking data manually and electronically before running applications such as the payroll. The Audit Manager indicated that if audit risk will be above tolerable levels, the firm will have no option but to resign from the audit unless audit risk can be reduced to acceptable levels.

The Audit Senior requested that you record the purchases and inventory systems of Muchinji Plc using Internal Control Questionnaires (ICQs) or Internal Control Evaluation Questionnaires

(ICEQs). The questions below on the inventory system were extracted from previously used questionnaires in recording the inventory system:

(i) Are goods received examined for quality before being accepted into stores? Y/N
(ii) Can defective goods be received and a liability recognized? Y/N

Required:

(a) Define and explain audit risk and explain how the auditor may reduce audit risk to an acceptable level. (4 marks)

(b) Identify and explain four (4) audit risks in the audit of the financial statements of Muchinji Plc and for each risk suggest a suitable response. (8 marks)

(c) Describe the difference between Internal Control Questionnaires (ICQs) and Internal Control Evaluation Questionnaires (ICQEs). (4 marks)

(d) Explain, giving examples, general controls and application controls in a computerized accounting system. (4 marks)

[Total: 20 Marks]

QUESTION FOUR

Masuku Ltd is a privately owned manufacturing company. It is owned by five (5) shareholders each of whom owns an equal number of shares. Except for one (1) one shareholder, the rest of the shareholders are based overseas and do not take part in the running of the company.

George, the Zambian based shareholder, is the Chief Executive Officer of the company. In addition to George, the company management comprises the Finance Director, Production Director, Human Resources Director and the Sales Director. The company has a Board of Directors comprising the Chief Executive Director and his team of directors and another three (3) independent non-executive directors. The management of Masuku Ltd is paid a fixed based salary and, in addition, an annual performance based payment on meeting the annual targets agreed at the beginning of the year. The Board of Directors fixes the remuneration of executive management.

The company prepares monthly management accounts which are used by management in making management decisions. The shareholders require that annual financial statements be prepared in accordance with International Financial Reporting Standards (IFRSs) and audited by a reputable firm of independent auditors.

Njanji Chartered Accountants are the auditors of Masuku Ltd. Masuku Ltd intend to set up board committees which will help enhance the operations of the Board of Directors. The intention is to set up an Audit Committee, Remuneration Committee and a Nomination Committee.

Required:

(a) Using information in the scenario, identify and explain the elements of the assurance engagement. (10 marks)

(b) (i) Explain the need for good corporate governance systems in the running of Masuku Ltd. (4 marks)

(ii) Distinguish Executive Directors from Non-Executive Directors in the Board of Directors of Masuku Ltd. (2 marks)

(iii) Explain four (4) roles of the Non-Executive Directors of the Board of Directors of Masuku Ltd. (4 marks)

[Total: 20 Marks]

QUESTION FIVE

The audit of the financial statements of Nshimbi Hardware Ltd is in its final stages. You are the Audit Manager and you are currently reviewing the working papers for work carried out by the audit team on accounts receivables. Throughout the audit, the audit team used sampling methods to extract samples for substantive testing. A review of the results of the substantive tests performed on accounts receivables, showed that there were misstatements that should be projected to the whole population. You are concerned that some of the deviations or misstatements are *anomalies*. You note that no projections were made based on the misstatements observed and that this may lead to incorrect conclusions. You have requested that this should be done.

The summary of the results of the positive confirmation performed by the audit team has revealed a significant level of *exceptions* and *non-responses*. The Audit Senior sent fresh confirmation letters to all non-responses but included all the *exceptions* in the summary of uncorrected misstatement. You are concerned that some of the exceptions could be as a result of factors that simply require reconciling. The working papers do not have any evidence of the work performed on the exceptions other than their inclusion in the schedule of uncorrected misstatements. It is your view that more work need to be done on the observed exceptions. This requires establishing the reasons for the *exceptions* in order to ensure that only genuine exceptions are included on the schedule for uncorrected misstatements.

There are customers with whom Nshimbi Hardware Ltd trades with and owes money. The receivables schedule contains the net effect of the payables and receivables for these customers. A majority of the receivables pay by way of cheques which are posted by mail to Nshimbi Hardware Ltd. The customer accounts are credited when cheques have been cleared by the bank and the company bank account credited.

The Audit Senior suggested that the audit opinion on the financial statements of Nshimbi Hardware Ltd should be a disclaimer of opinion. The following was extracted from the draft audit report by the Audit Senior.

To: The Board of Directors of Nshimbi Hardware Ltd

Responsibilities for the financial statements
Management of Nshimbi Hardware Ltd is responsible for the preparation of the financial statements in accordance with the applicable financial reporting framework.

Auditor's responsibilities for the audit of the financial statements
The independent auditors are responsible for obtaining sufficient appropriate audit evidence which will form the basis for forming an opinion on the financial statements**.**

The independent auditors are responsible for ensuring that fraud that may exist is detected and report appropriately in the audit report.

Basis for opinion
The reason for issuing a qualified opinion on the financial statements is that the audit team was not able to obtain sufficient appropriate evidence regarding the amount of receivables.

Opinion paragraph
The financial statements of Nshimbi Hardware Ltd have been prepared in accordance with the relevant financial reporting framework. Except for the matter referred to in the Basis for opinion paragraph, the accounts show a true and fair view.

Required:

(a) Explain the meaning of anomalies in sample results and explain how anomalies impact on projections of misstatements. (3 marks)

(b) Explain four (4) possible reasons for exceptions (differences) between the receivables balances according to the records of Nshimbi Hardware Ltd and balances confirmed by the receivables. (8 marks)

(c) Evaluate the extract from the draft audit report suggested by the Audit Senior. (9 marks)

[Total: 20 Marks]

END OF PAPER

CA 2.3 AUDITING PRINCIPLES AND PRACTICE SUGGESTED SOLUTIONS

SOLUTION ONE

(a) (i) **Meaning of social audits:**

These are audits that are conducted with a view to establish whether an organization has met its targets with regards to its operations and as a good corporate citizen.

A social audit could be conducted on the report of the performance of the company with regards to targets for the use of resources, health and safety laws and labour conditions and equal opportunities.

Meaning of environmental audits:

Environmental audits are audits whose objective is to evaluate how well an organization and its management is performing with regards to the objective of helping safeguard the environment.

In the case of Cairo Plc, an audit of the environmental reports can be conducted with a view to giving assurance on the Key Performance Indicators contained therein.

(ii) **Pressures that may necessitate environmental audit of Cairo Plc:**

1. The owners of an organization such as the owners of Cairo Plc. may be committed to a policy of not causing harm to the environment through the operation of the organization, requiring environmental records and audit.
2. Increased government legislation regarding environmental requirements and reporting. This could give pressure to have such reports audited in order for assurance on their credibility to be given.
3. The fact that environmental matters are a source of audit risk because there could be unforeseen liabilities that an organization may face.
4. Stakeholders such as pressure groups and others such as customers may require assurance on the environmental reports that are prepared or they move their custom to environmental friendly companies.
5. Some potential inventors may be influenced by environmental factors in deciding whether or not to invest in a company such as Cairo Plc.

(b) (i) **Reasonable and limited assurance engagements:**

Auditors may enter into a reasonable or limited assurance engagements with its client.

The two types of engagement are different in the following three (3) aspects:

Reasonable assurance engagement: Limited assurance engagement:

Reasonable assurance engagement	Limited assurance engagement
Level of assurance: 1. High but not absolute level of assurance. Gives rise to a reasonable level of assurance.	**Type of Engagement:** Lower level of assurance compared to that from a reasonable assurance and gives rise to a limited assurance.
Risk levels: 2. Engagement risk at low level in the circumstances as a basis for a positive form of expression of the conclusion/opinion.	Engagement risk at a level acceptable under the circumstances but risk is greater that the risk for a reasonable assurance engagement and is the basis for a negative form of conclusion/opinion.
Extent of audit work/testing: 3. Significant amount of testing and evaluation is required in a reasonable assurance engagement.	Allows for a lesser amount of testing and evaluation of evidence.

(ii) **With Cairo Plc.:**

An audit of financial statements as is required by Cairo Plc is a **reasonable Assurance engagement** which meets the criteria above.

(c) **Factors that may indicate non-compliance with laws & regulations by Cairo Plc:**

(i) The fact that the ZEMA has raised concerns after receiving complaints from the community near where Cairo Plc operates could be indicative of non-compliance by Cairo Plc with regulations regarding disposal of hazardous substances.
(ii) The report in the media regarding disposal of hazardous substances. This could also be a strong indicator of non-compliance.
(iii) The increase in the legal expenses account in the current year could be indicative of payments being made by Cairo Plc for legal expenses arising from non-compliance with laws and regulations.
(iv) Concealment by management of Cairo Plc by transferring using journal vouchers of legal expenses to sundry expenses account. Management appears to want to conceal the reasons for the legal expenses. This suggests that there was a breach of laws and regulations which the company is trying to conceal.

(d) Conflicts of interest in the audit of Financial Statements of Cairo Plc:

Auditors should not undertake an audit of the financial statements of a client company if there is a conflict of interest unless suitable safeguards are applied.

In the case of Soft Chartered Accountants, there are two conflicts of interests as follows:

1. The firm has shares in Waterloo Plc, a company that is in the same industry as Cairo Plc. This is an example of a conflict of interest between the members' and clients' interest. Waterloo Plc is in direct competition with Cairo Plc and audit client of Soft Chartered Accountants. The fact that the firm has an interest in Waterloo Plc may impact on the objectivity of the audit team when auditing the financial statements of Cairo Plc.

   It is necessary that Soft Chartered Accountants should evaluate the significance of the conflict of interest. In this case, a holding of significant number of shares in a company in direct competition with an audit client is clearly significant. The firm should consider disposing of the interest in Waterloo Plc, if it should continue auditing the financial statements of Cairo Plc. Alternatively the firm should obtain consent of Cairo Plc to continue auditing its financial statements despite this conflict of interest.

2. Offer for audit services by Waterloo Plc gives rise to a conflict of interest between interests of companies.

   Since Waterloo Plc is in the same industry and business with Cairo Plc, there is a clear conflict of interest between these two clients. If Soft Chartered Accountants were to accept appointment, the firm could be privy to confidential information of both companies and one or both of them may not be comfortable to being audited by the same firm of auditors.

   There is no legal restriction for a firm to audit clients in direct competition as is the case here. Soft Chartered Accountants should seek consent from both Waterloo Plc and Cairo Plc that they are agreeable to being audited by the same firm. If either of them is not comfortable, then the firm will need to choose which company to audit and not both.

   Where the threat is considered insignificant, suitable safeguards should be applied including the use of different audit teams to audit the financial statements of each of the two companies. Since Soft Chartered Accountants is a large firm, it may consider using a 'Chinese wall' within the firm by having the respective audits being undertaken by different audit 'groups' who will not share any information.

(e) (i) **Duty of the statutory auditor subsequent to period end:**
ISA 560 *Subsequent events* gives guidance on the duties of the auditors with regards subsequent events.

Events to the date of the audit report 13 March 2022

1. The auditor has an active duty to perform audit procedures from the period end to the date of signing the audit report. The active duty requires the

auditor to obtain sufficient appropriate audit evidence that events to the date of signing the audit report have been accounted for correctly in accordance with the provisions of IAS 10 *Events after the reporting period.*

2. The auditors should perform audit procedures to establish any subsequent events and once established they should enquire of management on how they have been accounted for. If they have been incorrectly accounted for, the auditors should request management to make necessary corrections and if management refuses to make amendments to respond appropriately to the refusal.

Events to the date of issue of the financial statements 28/03/22
The auditor has no obligation to perform audit procedures after the date of signing the audit report. The auditors have a passive duty after this date which is activated when certain conditions exist.

It is the responsibility of management to inform the auditors of any material subsequent events between the date of signing the audit report on 13/03/2022 and the date of issue of the financial statements of 28/03/2022.

If, however, the auditor becomes aware of matters that would have made them issue a different opinion during this period, then the passive duty is activated.

The auditor will be required to discuss such matters with management and if it requires that financial statements should be amended, the auditor will enquire of management how it hopes to deal with the matter. If amendments to the financial statements are made, the auditor will be required to perform further audit procedures on the amendments and issue a new audit report.

The auditor will then be required to extend the active duty work to be performed to the date the new audit report is signed and obtain evidence that any subsequent events during this period have been correctly accounted for.

Events to the date of Annual General Meeting on 08/04/2022:
The auditor has no active duty to perform audit procedures from the date of issue of the financial statements or the date of the new audit report whichever is later.

If the auditor comes across a matter that would have caused them to issue a different report from this date to the date of the approval of the financial statements on 08/04/2022 they will be required to discuss such a matter with management and find out how management wishes to deal with this matter.

Again, if the matter requires that the financial statements should be amended, the auditor will request management to amend the financial statements and the auditor will perform audit procedures on the amendments and issue a new audit report if necessary. This may require that the financial statements earlier issued are recalled.

The auditor will then need to extend the active duty responsibilities to the date of the new audit report.

(ii) **Action on refusal by Cairo Plc management to amend financial statements:**
The action of the auditor in this case will depend on whether or not the audit report has been provided to Cairo Plc or not.

- If, at the date of the matter, the audit report has been given to Cairo Plc, the auditors will be required to inform management and those charged with governance not to issue the financial statements before making the amendment required. In the event that management goes ahead to issue the financial statements, the auditors shall seek to prevent the reliance on the auditor's report.
- If, on the other hand, the audit report had not yet been given to Cairo Plc, the auditors will need to consider the impact of the refusal on the financial statements and consider modifying the opinion and then provide the auditor's report to Cairo Plc.

SOLUTION TWO

(a) **Control activities and control objectives:**

Control activity:	**Control objective:**
1. Cash and credit sale invoices should be accountable documents. This means that they should be pre-numbered.	The purpose of pre-numbering the cash and credit sales invoices is to ensure that all moneys received will be accounted for because they belong to Mukuba Ltd.
2. All credit given to customers should be approved using an appropriate credit application form by a responsible official.	In order to avoid the company from selling goods to customers who are not credit worthy and which may result in irrecoverable debts.
3. All money received should be compared to the following day's banking by a different official from those responsible for banking.	To ensure that money is banked the following day to reduce the risk of money being lost or misused.
4. Changes to standing data in the computerized sales system should be approved in writing by a responsible official.	To ensure that no unauthorized changes to standing data can be made in order to perpetuate fraud.
5. Delivery documents for credit sales should have a provision for the customer to sign and confirm receipt of the goods. This can be achieved by the receiving person entering their personal details and signing for receiving the goods.	To reduce the risk of disputes that goods were not delivered which could result in dispute of the amount owing.
6. Invoices raised should be independently checked for correctness and this must be evidenced in writing.	In order to reduce the extent or errors in invoicing resulting in a high incidence of credit notes being raised.

(b) Directional testing in auditing:

Auditors perform audit procedures on transactions in order to test for any misstatements in these figures. Misstatement could arise through over or understatements of the transactions or balances.

The principle of directional testing arises from the concept of double entry book keeping where for each entry there is a debit and credit aspect. Using this concept, auditors need not test one side of the double entry for both over and understatement.

Following this concept, debit entries which comprise expenses and assets are primarily tested for overstatement. By so doing, the corresponding credit entries are indirectly tested for overstatement.

Similarly, credit items comprising income and liabilities are primarily tested for understatement only and by so doing the corresponding debits are tested for understatement.

Following this principle, debits and credits are tested for both over and understatement directly in the first place and indirectly arising from the double entry system

(c) **Matters to consider for continuation of audit relationship:**

(i) The integrity of management who do not appear honest and gave clearly false information to the audit team. If the integrity of management is in doubt, the auditors may consider ending the relationship and resign from the engagement.
(ii) The fact that the audit fees for the previous two (2) years have remained outstanding and the CEO is still expressing concern about the current year fee and suggesting the fee should be reduced. The overdue fees are an ethical issue and may impact on the independence of the auditors and may be reason enough to consider resigning.
(iii) The pressure for the auditors to spend less time on the audit in order to reduce the fee. This may result in the auditor not being able to obtain sufficient appropriate audit evidence.
(iv) There is need for the firm to consider the level of audit risk for this client. This includes the risks identified during risk assessment when Mukuba Ltd became an audit client of Monde Chartered Accountants and any risks that could have arisen thereafter. If the audit risk cannot be reduced to acceptable levels, it may impact on the decision on whether to continue or discontinue the engagement.

(d) Matters implied by an unmodified audit opinion:

(i) There is an implication that the client company has maintained adequate accounting records.
(ii) It implies that the auditors have received all the necessary information considered necessary in obtaining evidence.
(iii) The financial statements agree with the underlying records.
(iv) The transactions with the directors have been disclosed in the financial statements as required.
(v) The information in the director's report is consistent with the financial statements.

SOLUTION THREE

(a) Definition of audit risk:

Audit risk is the risk that the auditor may issue an inappropriate audit opinion after performing audit procedures. This is the risk that the auditor would have issued an unmodified opinion when a modified opinion should have been reached.

Audit risk has three components as follows:
Inherent risk – This is the risk that exists by nature of the industry that the company is involved in or the nature of the assertion for example by nature accounting estimates have a high risk of misstatement due to the lack of means of determination and the fact that they are estimate.

Control risk – This is the risk that the internal controls in a client company may not be operating effectively and so errors and fraud which may cause financial statements to be misstated may not be detected by the auditors. This arises from the fact that the auditors rely on the internal control in designing further audit procedures to undertake.

Detection risk – This is the risk that the auditors may not detect material misstatements despite performing the audit in accordance with international standards on auditing. For example, if the audit team members do not possess the required skills and competences to perform audit procedures, undetected misstatements may result in an inappropriate opinion being reached by the auditor.

How the auditor may reduce risk to an acceptable level.
The first two components of audit risk namely inherent and control risks are management's responsibility and there is very little that the auditor could do to reduce these risks. The only component that the auditor has control over is detection risk. This can be reduced by extending the extent of substantive tests by the auditor. The greater the amount of substantive tests the lower the detection risk.

In view of the fact that audit risk is the product of the three components, the auditor may be able to reduce overall audit risk by reducing detection risk by increasing the sample sizes.

(b) Audit risks in the audit of the financial statements of Muchinji Plc:

Audit risks	Audit response
1. Laws & regulations: The nature of the industry that Muchinji Plc is involved in is such that it is highly regulated and there is a risk of non- compliance with laws and regulations by the company. Financial statements may be misstated due to an understatement of provisions.	During the audit, apply professional skepticism and look out for evidence of non-compliance with laws and regulation.

2. Valuation of inventory The company has significant quantities of work in progress as well as finished product at the period end. Valuation of both work in progress and finished products requires specialist skills. There is a risk that the valuation by the specialist companies may be incorrect resulting in the misstatement of inventory.	Assess the qualifications of the specialist company engaged by management to value work in progress and finished products. Alternatively, the audit firm may need to engage an auditor expert to carry out the valuation of work in progress and finished product.
3. Increase in receivables The increase in the receivables balance that is over three (3) months could result in the risk of the receivables not being collectable which could result in a misstatement of the receivables. There is a risk that the allowance for receivables may be understated.	Perform substantive procedures on the receivables figure and possibly carry out a third party confirmation of receivables. Look out for after period transactions that may relate to the receivables balances at the period end.
4. Issue of shares There has been an issue of 10 000 shares at a premium of K2.50 There is a risk that the proceeds of issue may not be correctly accounted for and that the share premium may not be credited to a share premium account.	Enquire from management the accounting for the issue of shares and ensure that this has been correctly done.
5. First time audit for industry: The fact that this is the first time that the firm will be auditing financial statements of a company in this industry increases audit risk. The fact that only the Audit Manager has experience in auditing this industry increases this risk.	Consider the use of experts in high risk areas and there should be close supervision of the work performed by the Audit Manager. The firm may also consider having a quality control review of the work done by someone who was not involved in the audit.
6. Opening balances	

	In view of the fact that the prior year financial statements were audited by a different firm of auditors means that there is a risk that the opening balances may be misstated resulting in the current year figures being misstated.	Ensure that the opening balances have correctly been brought forward and also examine current year transactions which may give evidence of the opening balances.

(c) **Difference between ICQs and ACEQs:**

Questionnaires are one of the methods that can be used by the auditors to record accounting and control systems of client companies. There are two types of questionnaires as follows:

Internal Control Questionnaire (ICQs):

This comprises a set of questions whose objective is to determine whether desirable controls in a particular system exist or are present. A NO answer suggests that there is a deficiency in the system.

For example, in case of the inventory system of Muchinji Plc, a question in the ICQ could be as follows:

Are goods received examined for quality before being accepted? Y/N

Internal Control Evaluation Questionnaires (ICEQs):

This is a set of questions designed to establish whether or not specific errors or fraud could occur rather than establishing whether desirable controls exist. The questions are designed concentrating on the significant errors that could occur in the various business cycles.

For example using the inventory system an ICQE question that could be included is as follows:

Can defective goods be received and a liability recognized? Y/N

(d) General controls:

General controls are controls in a computerized system that applies across the whole computerized systems of an entity. In case of Muchinji Plc these are controls that will apply throughout the integrated system.

An example, of a general control can include controls to ensure continuity of operations such as storing extra copies of programs and data files off-site or having back-up power sources.

Application controls:
Application controls are the controls that apply to specific computer applications. The purpose of these controls is to establish specific control procedures over the specific applications in order to provide reasonable assurance that all transactions are authorized and recorded and are processed completely, accurately and on a timely basis.

For example, in the case of the accounting system of Muchinji Plc controls over input authorization could include manual checks to ensure that input was authorized and also input by authorized staff.

SOLUTION FOUR

(a) Elements of the assurance engagement:

1. The three (3) parties to the engagement namely:
   - The management of Musuku Ltd which is responsible for the day to day running of the company. This comprises the Chief Executive Officer and the directors who are full time employees of the company.
   - The shareholders of the company including those who are not involved in the day to day running of the company.
   - The statutory auditors, Njanji Chartered Accountants whose objective is to obtain sufficient appropriate evidence and form an opinion in the financial statements.
2. The subject matter of the assurance engagement – these are the financial statements prepared by management and are at the center of the engagement.
3. Criteria – the basis upon which the financial statements are prepared and measured against by the statutory auditors. In this case the financial statements are required to be prepared in accordance with the International Financial Reporting standards (IFRSs)
4. Evidence – which is gathered by the statutory auditors which enables them form an opinion on the financial statements. The auditors obtain evidence through performing audit procedures.
5. Report – which is the outcome of the audit by the statutory auditors addressed to the shareholders who are the key stakeholders of the company.

(b) (i) Need for good corporate governance of Masuku Ltd:

Corporate governance is the way that a company is run and controlled.

There are various stakeholders who have an interest in the success of Musuku Ltd such as the government, the employees and the shareholders.

In order for an organization to meet its objectives, it should be run according to best corporate governance practices. The fact that those entrusted in running the company are not necessarily the owners means that there is a risk that they could run the company in their own interest rather than the interest of the shareholders.

It is therefore of importance that the company is run well so that the interests of the shareholders are taken into account. Shareholders will be willing to continue investing in the company if they are assured that their investment is safe and this can only be guaranteed if good corporate governance systems are in place. In the case of Musuku Ltd, except for one (1) shareholder the rest of the shareholders are based overseas and they are not involved in the running of the company. Strong corporate governance is necessary to serve the interests of these shareholders.

(ii) **Executive & Non-Executive Directors:**

Executive directors are those directors in the board of directors that also have executive responsibilities of running the company. In this case, the Chief Executive Officer, the Finance Director, the Production Director, the Human Resources Director and the Sales Director who are involved in the day to day running of the company and also are members of the board of directors are executive directors.

Non-executive directors are those members of the board of directors who are not involved in the day to day running of the company; the three (3) independent directors are non-executive directors.

(iii) **Roles of the non-executive directors:**

The non-executive directors play an important role in organizations because of their independence from the company.

The non-executive directors of Masuku Ltd include the following:

(i) To compose the intended committees of Audit Committee, the Remuneration and Nomination Committees.
(ii) Setting the remuneration of the executive directors through their membership of the remuneration committee. It would be inappropriate for the executive directors to set their own remuneration as is currently the case where the board which includes executive directors sets the remuneration of the executive directors.
(iii) The non-executive directors have an important role with regards to the company financial statements and so enhance the reliability of the financial statements.
(iv) They assist in the appointment of the statutory auditors and ensuring that they maintain their independence. The non-executive directors also help resolve conflicts that may exist within management and that may exist with the statutory auditors.

SOLUTION FIVE

(a) Meaning of anomalies:

Auditors in performing audit procedures apply audit procedures on samples extracted. Results of sample tests may reveal deviations or misstatements. Anomalies are deviations that are demonstrably not representative of the deviations or misstatements of the population represented by the sample.

To conclude that deviations are anomalies, the auditor requires to obtain a high degree of confidence that this is so and this is achieved by carrying out additional audit procedures.

Impact of anomalies on projection of misstatements:
Projection of misstatements is the process where the auditor projects the sample deviations to the whole population. Projections enable the auditor to obtain a broad view of the scale of the misstatement to the whole population.

When projecting sample errors to the population, those misstatements that are considered as anomalies are excluded in the computation of the projection.

(b) **Exceptions in a receivables confirmation** arise when the amount confirmed by the receivable is different from the amount being confirmed. There are various reasons for exceptions which must be considered in evaluating the results of the confirmations.

The following are examples of reasons for exceptions:

1. Goods that are in transit and not received and accounted for by the receivable at the period end may cause an exception and differences in the balances.
2. Cash in transit – money paid by the receivable and not yet received by the entity will cause an exception.
3. Mis-postings of invoices or receipts by the accounts department.
4. A clear dispute of the amount being confirmed by the receivable. This must be investigated and provisions made as appropriate.
5. There could be goods returned by the customer in the current year but bot accounted for in the current year.
6. Receivables who are also payables may set off the two amounts and confirm the net amount which may be different from the amount being confirmed.
7. Fraud by employees in a scheme of teeming and lading where receipts re used to cover up fraud that has taken place.

(c) **Evaluation of draft audit report:**

1. The draft audit report is incorrectly addressed to the board of directors. The audit report is supposed to be addressed to the shareholders who are part of the elements of the assurance engagement.

2. The order of the elements of the auditor’s report is not correct. The revised standard ISA 700 has the Opinion paragraph at the beginning of the report and the basis of opinion follows thereafter. The management and auditor responsibilities come later in the report. The paragraphs in the extract from the suggested report are not in line with guidance.
3. The suggestion of the Audit Senior is that a Disclaimer of opinion should be issued. The title should have been Disclaimer of opinion and not opinion paragraph as suggested.
4. The reasons for the disclaimer should be contained is a paragraph titles Basis for disclaimer of opinion and not Basis for opinion as in the draft. The only time opinion and basis for opinion paragraph are appropriate is when an unmodified opinion is issued.
5. The suggestion that the independent auditors are responsible for ensuring that fraud should be detected and reported upon is incorrect. The objective of the auditors is to form an opinion on the financial statements and management is responsible for the prevention and detection of fraud.
6. The opinion in the draft report is inconsistent with the basis of the opinion. The opinion should be a disclaimer and not a qualified opinion as suggested. The opinion should have read that the auditors did not obtain sufficient appropriate evidence and as such could not form an opinion.

END OF SOLUTIONS

CA-ZAMBIA PROGRAMME EXAMINATIONS

CA APPLICATION ADVANCED DIPLOMA IN ACCOUNTANCY

CA 2.4: TAXATION

THURSDAY 23 MARCH 2023

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 – (COMPULSORY)

Linda and Melinda have been in business as partners for many years, sharing profits and losses in the ratio 4:3 respectively. This is after allowing for partnership salaries of K240,000 per annum each. The partnership accounts are prepared annually to 31 December.

On 1 August 2022, a new partner, Belinda was admitted to the partnership and with effect from that date, the partnership agreement was changed. Linda, Melinda and Belinda became entitled to annual salaries of K480,000, K450,000 and K420,000 respectively, whilst profits and losses were now to be shared in the ratio 5:3:2 amongst Linda, Melinda and Belinda respectively.

The partnership's statement of profit or loss for the year ended 31 December 2022 was as follows:

	Note	K	K
Gross profit			2,137,300
Add Other income			
Profit on sale of delivery van			25,500
			2,162,800
Less expenses:			
Depreciation		146,500	
Wages and salaries	(1)	1,433,600	
Legal expenses	(2)	126,000	
Entertainment and gifts	(3)	71,200	
Repairs & renewals	(4)	20,700	
Miscellaneous expenses	(5)	239,400	
			2,037,400
			125,400

Notes

(1) ***Wages and salaries***

Wages and salaries included employee's salaries of K545,500, employee's professional subscriptions of K45,600 and partner's salaries of K842,500.

(2) ***Legal expenses***

These comprised the following:

	K
Defending action in respect of alleged faulty goods	85,000
Defending title to business premises	25,000
Defending Linda in connection with a speeding offence	3,500
Fees in relation with making changes to the partnership agreement	12,500
Total	126,000

(3) **Entertainment and gifts**

These included entertainment expenses for customers of K12,300, entertainment expenses for partners of K18,600, new year party for employees of K26,800 and a donation to an approved Public Benefit Organization (PBO) of K13,500.

(4) **Repairs and renewals**

These comprise expenditure of K15,000 incurred on fitting fire safety equipment in the business premises and repairs of office equipment of K5,700.

(5) ***Miscellaneous expenses***

These comprised the following:

	K
Utility bills	41,800
Rent for business premises	46,200
Motor car running expenses (see also note 6)	90,000
Fines for traffic offenses committed by partnership employees	28,000
General allowable business expenses	33,400
	239,400

It has been agreed with the Commissioner General that One quarter (¼) of the expenditure on utility bills relates to the private residential houses occupied by the partners.

(6) ***Partner's private personal motor vehicles***

The motor car running expenses in note (5) above, relates to private motor cars which are personally owned by the partners which they use partly for business purposes. The partners purchased each vehicle during the tax year 2022. The original cost of each car, the motor car running expenses relating to each vehicle together with the business mileage as a percentage of total mileage done by each partner are as given below:

Partner	***Original cost***	***Motor car running expenses***	***Business Mileage***
	K	K	%
Linda	350,000	45,000	70
Melinda	300,000	30,000	40
Belinda	280,000	15,000	60
		90,000	

(7) **Goods for personal use**

The partners withdrew some goods from the business, for personal and family use. The total cost of the goods withdrawn was K135,000. The partnership makes a margin of 25%

on all sales of these types of goods. The partners reimbursed the full cost of the drawn goods.

(8) **Implements, Plant and Machinery**

At 1 January 2022, assets qualifying for capital allowances owned by the partnership included, office equipment with an Income Tax Value of K125,000 (with an original cost of K250,000) and a delivery van with an Income Tax Value of K105,000 (with an original cost of K140,000). The delivery van was sold for K165,000 in March 2022.

(9) **Other income**

The partners received the following income from other sources in their own personal capacity in the tax year 2022.

	Linda	***Melinda***	***Belinda***
	K	K	K
Dividends from private Ltd companies	29,750	38,250	13,600
Fixed Deposit interest	16,500	10,200	8,400
Management fees	44,200	38,250	Nil
Copyright royalties	Nil	Nil	30,600

The above amounts represent the actual cash received by each individual in each case. Withholding tax was deducted at source at the relevant rates.

Required:

(a) Calculate the partnership's tax adjusted business profit for the year ended 31 December 2022, before division between the partners. (13 marks)

(b) Calculate the amount of the business profits on which each partner will be assessed for the year ended 31 December 2022. (12 marks)

(c) Compute the income tax payable by each partner for the tax year 2022. (15 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt any three (3) questions.

<u>QUESTION TWO</u>

FarMac Limited is a Zambian resident company engaged in farming and manufacturing. The company is not listed on the Lusaka Securities Exchange (LuSE). For the year ended 31 December 2022, the company generated the following results:

	K
Profits from manufacturing (Note 1)	791,400
Profits from farming (Note 2)	1,750,000
Investment income (Note 3)	91,000

The following additional information is relevant:

(1) The profit from manufacturing was the tax adjusted profit before capital allowances. Capital allowances on implements, plant and machinery used in manufacturing operations for the tax year 2022 were determined to be K128,600.

(2) The farming profits were the tax adjusted business profit before capital allowances. The company incurred the following capital expenditure in relation to the farming operations during the year ended 31 December 2022:

	K
Construction of storage barn	24,500
Purchase of combine harvester	135,000
Construction of farm a farm dwelling (one unit) for a farm employee	145,000
Cost of stumping and clearing of farm land	21,400
Cost of fencing the farm	72,000

(3) At 1 January 2022, the company had an unrelieved tax loss brought forward from farming operations of K55,700, which was the balance of the loss which was incurred two (2) years ago.

(4) Investment income comprises bank interest of K51,000 (net) and dividends of K40,000 (gross) received from Zambian resident companies.

(5) The provisional income tax paid by the company for the tax year 2022 was K62,750.

Required:

(a) Explain the circumstances under which capital allowances on expenditure incurred by a farming enterprise may be available at higher rates. (3 marks)

(b) Explain the tax treatment of tax losses arising from farming operations. (2 marks)

(c) Compute the final taxable farming profits after capital allowances for FarMac Ltd for the tax year 2022. (8 marks)

(d) Calculate the amount of income tax payable by FarMac Ltd for the tax year 2022. (7 marks)

[Total: 20 Marks]

QUESTION THREE

Kamoto runs a public passenger transport business in Lusaka. In the tax year 2022, he bought three (3), mini buses each with a seating capacity of eighteen (18) passengers which operate on the Town Centre/ Matero route. Each bus was acquired at a cost of K65,000 and earns K800 per day. All of the buses where brought into use on 1 April 2022 after payment of all registration costs and were operational for five (5) working days in a week for four weeks per month up to 31 December 2022

Kamoto wants to increase the fleet of his buses in order to cover most of the routes in Lusaka and has decided to sell some of his properties to raise money to buy more buses. In the year ended 31 December 2022, he sold the following properties:

(1) On 20 March 2022, he sold 20,000, K2 shares in BMC Limited for K10 each being the market value as determined by the approved share valuation methods. He had bought these shares three (3) years ago at a total cost of K120,000.

(2) On 31 March 2022, he sold 5 hectares of farm land to his neighbor in the Mkushi farming block for K350,000. This was the market value determined by the Government valuation experts. He had bought the Land Five (5) years ago at a cost of K90,000.

(3) On 2 April 2022, he sold his Toyota Corolla car for K55,000 being the open market value of the car. Kamoto had acquired the car four (4) years ago at a cost of K80,000.

(4) On 10 April 2022, he sold his 3 bedroomed house in Chilenje South for K450,000. However, the open market value determined by the Commissioner General on the date of transfer was K480,000.

(5) On 22 April 2022, he sold 15,000 shares in BIZMAX Plc for K25 each. The nominal value of these shares was K5 each. He had bought these shares from an initial public offer (IPO) in 2018, at a price of K2 per share.

Required:

(a) Explain the reasons why Kamoto will be required to pay presumptive taxes in relation to his transportation business in the tax year 2022. (2 marks)

(b) Explain any three (3) reasons why the Government of the Republic of Zambia introduced presumptive taxes for transporters. (3 marks)

(c) Calculate the amount presumptive tax paid for each bus and the total tax for all the buses for the tax year 2022. (2 marks)

(d) Explain the meaning of property for Property Transfer Tax (PTT) purposes and state any four (4) categories of qualifying property. (5 marks)

(e) Explain the property transfer tax implications arising on the sale of each of Kamoto's properties above. Your answer should include a computation of property transfer tax paid on each transaction if any. (8 marks)

[Total: 20 marks]

QUESTION FOUR

For the purposes of this question assume that today's date is 31 December 2022

Lionel Raufiq, a Medical Doctor, was born in a country known as Valderia in 1982. He had always lived in Valderia, where he is also domiciled. Lionel was recently appointed as an expatriate doctor at PerfectHealth Hospital, a Zambian resident privately owned hospital. His contract of employment commenced on 1 September 2022 and will expire on 31 August 2024, after which he will relocate back to Valderia permanently.

Lionel arrived in Zambia to take up the position on 1 September 2022. His annual salary was K840,000 in the tax year 2022 and he was paid a relocation allowance of K70,000. The company leased a house on his behalf paying lease rentals of K14,000 per month and utility expenses of K4,000 per month in relation to the accommodation. He was provided with a personal to holder motor car with a cylinder capacity of 2,900cc, which the company acquired at a cost of K560,000 on 1 September 2022. The company paid for all the motor car running expenses which amounted to K3,500 per month. The company also paid his golf club subscriptions of K6,000 and professional subscriptions to the Medical Association of Zambia amounting to K8,000.

Employee's NAPSA contributions of K4,887 were deducted from his gross pay and PerferctHealth paid employer's NAPSA contributions of K4,887 on his behalf. Employee's NHIMA contributions of

K2,800 were deducted from his gross pay and PerfectHealth Hospital paid employer's NHIMA contributions of K2,800 on his behalf.

In December 2022, the following income from investments he holds in Valderia was credited to his Zambian bank account.

	K
Dividends (net)	45,500
Rental income (net)	115,000
Fixed deposit interest	36,000

The dividends and rental income were net of withholding (WHT) tax at the rate of 35% deducted in Valderia, whilst the fixed deposit interest was net of WHT at the rate of 10% deducted in Valderia.

He additionally received the following income from Zambian sources from undertakings he made during his stay in Zambia in the tax year 2022:

	K
Dividends from companies listed on the LuSE	25,000
Management fees	170,000
Bank deposit interest	10,200

These were actual amounts received in each case. WHT was deducted at source were applicable.

There is no double taxation agreement between Zambia and Valderia. Any double taxation relief available is given by way of unilateral credit relief.

Required:

(a) Explain the reasons, why Lionel Raufiq will be regarded as being resident and ordinarily resident in Zambia in the tax year 2022. (3 marks)

(b) Compute the income tax payable by Lionel Raufiq for the tax year 2022. (17 marks)

[Total: 20 Marks]

QUESTION FIVE

Mwanji Kauzeni started running a retail business making standard rated supplies on 1 June 2021. She has heard that a business is required to register for Value Added Tax (VAT) when the sales reach a certain level, but she is not sure whether she is required to register her business for VAT. Mwanji has heard that once the business is registered for VAT, she will be able to claim input VAT on her expenditure if certain conditions are met.

She has provided you with the following information relating to the monthly VAT exclusive sales her business has been generating since she commenced trading:

Year	Month	Sales	Year	Month	Sales
		K			K
2021	June	46,000	2022	April	49,800
	July	40,200		May	82,200
	August	51,100		June	72,500
	September	60,400		July	80,100
	October	70,000		August	86,700
	November	40,900		September	67,900
	December	51,800		October	96,800
2022	January	59,300		November	47,100
	February	45,800		December	98,700
	March	68,700			

In June 2022 Mwanji purchased a brand-new Honda Civic Hatchback car with a cylinder capacity of 1,290cc, from a motor car dealer in Japan for her own personal use. The car was manufactured in Japan in June 2021. The purchase price of the car was US$3,200 (free on board). She incurred insurance costs of US$300, freight costs of US$1,200 in transit up to the port of Dar es Salaam where clearing and forwarding costs of US$200 were incurred. She further incurred incidental costs of transporting the vehicle from the Nakonde border post to Lusaka amounting to $1,000. In Lusaka, Interpol clearance fee was K200, vehicle registration fees were K2,000, comprehensive motor car insurance costs were K5,000 and Road tax was K500.

The exchange rate provided by the Commissioner General at the time of importation of the vehicle was K16.50 per US$. However, the exchange rates quoted in a local Bureau De Change was K16.60 per US$.

Required:

(a) Explain, giving reasons supported with appropriate computations, when Mwanji will be required to register for VAT:

(i) If the quarterly VAT registration threshold was applied. (4 marks)

(ii) If the annual VAT registration threshold was applied. (5 marks)

(b) Explain the consequences for Mwanji if she registered her business for VAT late by three (3) months after the time the business should have been registered. (2 marks)

(c) Explain any three (3) conditions that must be met for Mwanji to be able to claim input VAT on her expenditure. (3 marks)

(d) Compute the Customs Value (Value for Duty Purposes) of the Honda Civic and the total import taxes paid by Mwanji on the importation of the car. (6 marks)

[Total: 20 Marks]

END OF PAPER

CA 2.4: TAXATION SUGGESTED SOLUTIONS

SOLUTION ONE

(a) COMPUTATION OF TAXABLE PROFITS

	K	K
Profit as per accounts		125,400
Depreciation	146,500	
Partner's salaries	842,500	
Defending Linda for Speeding offense	3,500	
Entertaining customers	12,300	
Entertaining partners	18,600	
Fire safety equipment	15,000	
Utility bills (K41,800 x1/4)	10,450	
Motor car expenses for		
Linda (K45,000 x 30%)	13,500	
Melinda ((K18,000 X 60%)	18,000	
Belinda (K15,000 x 40%)	6,000	
Goods for personal use (K135,000 x 25/75)	45,000	
		1,131,350
		1,256,750
Profit on sale of delivery van	25,500	
Capital allowances	31,250	
		(56,750)
Taxable Profits		1,200,000

COMPUTATION OF CAPITAL ALLOWANCES

	K	K
Fire safety equipment		
Wear and tear allowance		
(K15,000 x 25%)		3,750
Office equipment		
Wear and tear allowance		
(K250,000 x 25%)		62,500
Delivery van		
ITV b/f	105,000	
Proceeds (restricted to cost)	140,000	
Balancing charge		(35,000)
Total capital allowances		31,250

(b) ALLOCATION OF TAXABLE PROFITS

	Total	*Linda*	*Melinda*	*Belinda*
(1.1.2022–31.07.2022)	K	K	K	K
Salaries (7/12x K240,000)	280,000	140,000	140,000	-
Balance (4:3)	420,000	240,000	180,000	-
7 months' profit	700,000	380,000	320,000	-
(1.08.2022–31.12.2022)				
Salaries (5/12)	562,500	200,000	187,500	175,000
Balance (5:3:2)	(62,500)	(31,250)	(18750)	(12,500)
5 months' profit	500,000	168,750	168,750	162,500
Total	1,200,000	548,750	488,750	162,500
Less capital allowances				
Linda's car				
(K350,000 x 20%) × 70%	(49,000)	(49,000)		
Melinda's car (K300,000 x 20% x 40%)	(24,000)		(24,000)	
Belinda's car				
K280,000 × 20% × 60%	(33,600)			(33,600)
Final Taxable profits	1,093,400	499,750	464,750	128,900

(c) PERSONAL INCOME TAX COMPUTATIONS FOR THE TAX YEAR 2022 FOR:

	Linda	Melinda	Belinda
Taxable Profits	499,750	464,750	128,900
Investment income			
Management fees			
K44,200/38,250 x 100/85	52,000	45,000	
Royalties (K30,600 x 100/85)			36,000
Total taxable income	551,750	509,750	164,900
Income Tax			
On First K54,000 x 0%	0	0	0
On next K3,600 x 25%	900	900	900
On next K25,200 x 30%	7,560	7,560	7,560
On excess			
(K468,950/K426,950/K82,100) x 37.5%	175,856	160,106	30,788
	184,316	168,566	39,248
Less WHT			
(K52,000/K45,000/K36,000) x 15%	(7,800)	(6,750)	(5,400)
	176,516	161,816	33,848

SOLUTION TWO

(a) Capital allowances are available at a higher rate in the following circumstances:

(1) Where expenditure is incurred on implements, plant and machinery that are used directly in farming such as ploughs, tractors and combined harvesters.

(2) Where the expenditure is incurred on farm improvements which are all permanent works that are used for farming purposes, such as farm dwellings, fencing and buildings used for the welfare of employees.

(3) Where expenditure is incurred on farm works are works in respect of which expenditure is incurred on farming and land for farming purposes. Examples are stumping and clearing, boreholes, digging wells etc.

(b) If farming business incurs a tax loss, that loss can be carried forward and set off against the first available profits of that business arising from the same source as that which produced the loss. That loss can be carried forward for a minimum of five years.

(c) COMPUTATION OF FINAL TAXABLE FARMING PROFITS CAPITAL ALLOWANCES FOR THE TAX YEAR 2022

	K	K
Taxable profits before capital allowances		1,750,000
Less capital allowances		
Combine harvester (135,000 x 100%)	135,000	
Storage barn (24,500 x 100%)	24,500	
Farm dwelling (20,000 x 100%)	20,000	
Fencing (72,000 x 100%)	72,000	
Stumping and clearing (21,400 x 100)	21,400	
Total capital allowances		(272,900)
Taxable farming profits before loss relief		1,477,100
Less unrelieved loss b/f		(55,700)
Final taxable farming profit		1,421,400

(d) FARMMAC

COMPANY INCOME TAX COMPUTATION FOR THE TAX YEAR 2022

	K
Profits from manufacturing	791,400
Less:	
Capital allowances	(128,600)
	662,800
Bank interest (51,000 x 100/85)	60,000
Total non-farming income	722,800
Farming profits	1,421,400
Total taxable income	2,144,200

Company income tax on non-farming income:	
30% x K722,800	216,840
Company income tax on farming income:	
10% x 1,421,400	142,140
	358,980
Less income tax already paid:	
WHT- Bank interest (60,000 x 15%)	(9,000)
Provisional income tax	(62,750
Final company income tax payable	287,230

SOLUTION THREE

(a) Kamoto will be required to pay presumptive taxes for transporters as he is an individual running a public passenger transportation business. This is in view of the fact that presumptive taxes are paid by individuals and partnerships running public passenger transportation business.

(b) The Government of the Republic of Zambia introduced presumptive tax various reasons which include:

(1) Governments do not have a comprehensive list of the potential taxpayers in the informal sector.

(2) The administrative cost of dealing with a sea of returns from these small taxpayers is extremely high.

(3) The informal sector businesses themselves keep poor accounting records; in most cases, they do not keep any accounting records at all.

(c) An operator can opt to pay presumptive tax on a quarterly or an annual basis. Since the buses were brought into use on 1 April 2022, they were in operational for three quarters (3/4) of the year 2022.

The amount of presumptive taxes arising will therefore be computed as follows

Presumptive tax per bus

= K1,080 per quarter x 3 quarters = K3,240

Total presumptive tax for 3 buses (K3,240 x 3) = K9,720

(d) For the purposes of property transfer tax, property means immovable property but excludes chattels. Under the PTT Act property includes:

(1) Land (including buildings or any structure on it)
(2) Buildings
(3) Shares excluding shares listed on the Lusaka Securities Exchange
(4) Intellectual property and;
(5) Mineral processing licenses
(6) Mining rights or an interest in mining rights

(e) (1) The shares in BMC Ltd are chargeable as the company is not listed on the Lusaka Securities Exchange. The realized value is the higher of the nominal value and the open market value, i.e. 20,000 x K10 = K200,000.

Property transfer tax = K200,000 x 5% = K10,000

(2) The sale of land is chargeable to PTT. The realized value is the higher of the open market value and the actual sales price. As the farm was sold at the open market value, the price paid by the buyer is the realized value.

Property transfer tax = K350,000 x 5% = K17,500

(3) The sale of a Toyota Corolla car is not chargeable to PTT because movable properties or chattels are not chargeable to PTT. Therefore, the realised value is nil and no PTT paid.

(4) The sale of a house is property chargeable to PTT. The realized value is the higher of the open market value and the actual sale price. The realized value is the open market value determined by the Commissioner General which is K480,000.

Property transfer tax = K480,000 x 5% = K24,000

(5) BIXMAX Plc. is a company that is listed on the Lusaka Securities Exchange. Shares that are listed on LUSE are not chargeable property. Therefore, property transfer tax is not payable on the disposal of shares in BIXMAX Plc.

SOLUTION FOUR

(a) An individual is regarded as being resident in Zambia if he or she is physically present in Zambia for a period of not less than 183 days in a charge year.
Additionally, an Individual who lives in Zambia or comes to Zambia with the intention of remaining for a period which will exceed 12 months, is regarded as resident and ordinarily resident from the date of arrival.

Lionel will be regarded to be a resident and ordinary resident in the tax year 2022. This is because, even though Lionel was not physically present in Zambia for a period of at least 183 days, in the tax year 2022, having only stayed in Zambia for 122 days in the charge year, he has intention of staying in Zambia for a period that will exceed a period of 12 months having taking up the position as an expatriate doctor in Zambian company on a contract that will last for two years. He will therefore be regarded as resident and ordinary.

(b) LIONEL
PERSONAL INCOME TAX COMPUTATION FOR THE TAX YEAR 2022

Income from Zambian sources		
Zambian employment income		
Salary (K840,000 x 4/12)		280,000
Relocation allowance		70,000
House lease rentals (K14,000 x 4)		56,000
Utility expenses (K4,000 x 4)		16,000
Golf club subscriptions		6,000
		428,000
Zambian Investment income		
Management fees (K170,000 x 100/85)		200,000
		628,000
Income from foreign sources		
Dividends (K45,500 x 100/65)	70,000	
Rental income	0	
Fixed deposit interest		
(K36,000 x 100/90)	40,000	
		110,000
		738,000
Income Tax		
On first K54,000		0
On next K3,600 x 25%		900
On next K25,200 x 30%		7,560
On excess (K738,000 - K82,800) x 37.5%		245,700
		254,160
Less:		
WHT on management fees (K200,000 x 15%)		(30,000)

Double Taxation Relief:	
Dividends (W1)	(24,107)
Fixed deposit interest (W2)	(4,000)
Income tax payable	196,053

Workings

(1) Double taxation relief on dividend from dividends is the lower of:

(i) Foreign withholding tax paid

= K70,000 x 35%

= K24,500

(ii) Zambian income tax attributed to the foreign dividend

$$\frac{\text{Gross amount of foreign income}}{\text{Total assessable income}} \times \text{Zambian tax charge}$$

$$= \frac{K70{,}000}{K738{,}000} \times K254{,}160$$

= K24,107

DTR is K24,107 being the lower amount

(2) (i) The foreign income tax paid on the deposit interest

= K40,000 x 10%

= K4,000

(ii) Zambian income tax attributed to the foreign interest income

$$\frac{\text{Gross amount of foreign income}}{\text{Total assessable income}} \times \text{Zambian tax charge}$$

$$= \frac{K40{,}000}{K738{,}000} \times K254{,}160$$

= K13,776

DTR is K4,000 being the lower amount

SOLUTION FIVE

(a) (i) The quarterly VAT registration threshold is K200,000. This threshold will have been exceeded in May 2022.

This is because the cumulative sales for the period of 3 months from 1 March 2022 to 31 May 2022 will be:

K68,700 + 49,800 +K82,200 = K200,700

Mwanji should have informed the ZRA by the end of June 2022 and her VAT registration will have been effective as of 1 July 2022, or from an earlier agreed date.

(ii) The annual VAT registration threshold is K800,000. The sales will exceed the annual VAT registration limit of K800,000 in October 2022.

This is because the cumulative sales for the 12-month period from November 2021 to October 2022 will be:

K40,900 + K51,800 + K59,300 + K45,800 + K68,700 + K49,800 + K82,200 + K72,500 + K80,100 + K86,700 + K67,900 + K96,800 = K802,500

Mwanji should have informed the ZRA by the end of November2022 and her VAT registration will have been effective as of 1 December 2022, or from an earlier agreed date.

(b) Late registration for VAT attracts automatic penalties consisting of 10,000 fee units for each standard tax period the supplier remains unregistered after meeting the registration threshold.

Therefore, if Mwanji had registered the business three months after the relevant due registrations date, the penalties arising would have been:

10,000 x 3 = 30,000 penalty units or K9,000 (K0.30 x 10,000 x 3)

(c) Input VAT is recoverable if the following conditions are met:

(1) At the time the supply was made, the trader was a registered trader for VAT purposes.
(2) The supply must have been made to the taxable person making the claim.
(3) The supply must be supported by evidence. The evidence is normally in the form of the tax invoice.
(4) The person making the claim must use the goods or services for business. Personal expenses do not qualify for relief.
(5) The amount available for recovery is that which is accurately calculated. The tax must be the amount that accurately relates to the supply.

(6) The VAT should not be that which is irrecoverable.

(1 mark for each valid up to a maximum of 3 marks)

(d) COMPUTATION OF VDP

Purchase price	$3,200
Insurance	$300
Freight charges	$1,200
Clearing & forwarding	$200
VDP in US$	$4,900
Exchange rate	x K16.50
VDP in ZMW	80,850

COMPUTATION OF IMPORT TAXES

	value K	Import Taxes K
Value for duty purposes	80,850	
Customs duty @30%	24,255	24,255
	105,105	
Excise duty @20%	21,021	21,021
VDP for import VAT	126,126	
Import VAT @16%	20,180	20,180
Total value	146,306	
Total import taxes		65,456

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ZAMBIA APPLICATION ADVANCED DIPLOMA IN ACCOUNTANCY

CA 2.5: FINANCIAL MANAGEMENT

FRIDAY 24 MARCH 2023

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

INSTRUCTIONS TO CANDIDATES

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

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

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

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

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

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

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

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

8. Present legible and tidy work.

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

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

SECTION A

This question is compulsory and must be attempted

QUESTION ONE - (COMPULSORY)

NICHOLE Financial Consulting Ltd is a renowned company providing financial consulting services across the country. Recently, a Constituency Committee from Lusaka engaged the firm to assist in selecting two mutually exclusive investment projects for the Constituency Development Fund (CDF). Both projects are concerned with the purchase of a new machine. The committee formed a Special Purpose Entity to undertake the investments on its behalf. The Committee has expressed its desire to maximise profit from the selected investment and wish to put it as a key performance indicator for managers of the investment. The Committee provided the following data regarding each project:

Details	**Project A**	**Project B**
	K'000	K'000
Investment Cost	7,000	10,000
Annual Net Accounting Profit/(Loss):		
Year 1	(1,500)	(2,000)
*Year 2 to 5	2,700	1,900
*Year 6 to 10	3,000	4,500
Estimated Disposal value of Equipment at year 10	1,200	2,500

The amount provided is for each year over the respective period.

The expectation is that the funding for the selected investment will be 80% from CDF and the balance from a 10% bond carrying a maturity period of ten (10) years. The market and par value for the bond is K1,000 and redemption will be at a premium of 10%. NICHOLE Financial Consulting Ltd has decided to use Capital Asset Pricing Model (CAPM) to come up with the minimum return for the CDF funding. The firm through financial market analysts has establish that an asset beta of 0.75 is appropriate for this nature of investment. The annual expected market return is 18% and government treasury bonds is 10%. The straight-line method of depreciation will be used for all non-current assets when calculating both net profit and taxation. Neither project would increase the working capital of the business.

Assume taxation of 20% per annum where applicable, payable in the same year.

Required:

(a) Evaluate each of the investment project using the following methods:

- (i) Net Present Value (21 marks)
- (ii) Payback Period (5 marks)
- (iii) Accounting Rate of Return using average investment (5 marks)

(b) Discuss the advantages and disadvantages of Internal Rate of Return (IRR), in relation to Net Present Value (NPV). (5 marks)

(c) One (1) of the reasons, profit maximisation may not be the only key performance indicator is because of its susceptibility to manipulation. Explain four (4) ways of how accounting profit can be manipulated. (4 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt any THREE (3) questions.

QUESTION TWO

Chibwe Ltd is a recently established company specialised in manufacturing of organic cooking oil. The company has an annual turnover of K900 million before taking into account bad debts of K26.5 million. Chibwe Ltd make all sales on credit of which the customers negotiate the credit terms. The average settlement period for trade receivables is 65 days. The trade receivables are financed by an overdraft bearing an annual interest rate of 15%. The company management has decided to review its credit policies to see whether more efficient and profitable methods could be employed.

Currently, management is considering a proposal where customers should be given a 3.5% discount if they pay within 30 days. For those who do not pay within this period, a maximum of 45 days' credit should be given. It is strongly expected that that 70% of the customers will take advantage of the discount by paying at the end of the discount period, and the remainder will pay at the end of 45 days. If the proposal is adopted with strict adherence to credit controls costing K10 million per year, bad debts are expected to be effectively eliminated. No significant change in the sales revenue is expected following the change in the policy.

To finance its manufacturing plant, Chibwe Ltd issued 10% bonds that are redeemable at their par value of K1,000 in five (5) years' time. Alternatively, each bond may be converted on maturity into 250 ordinary shares of the company. The current ordinary share price of Chibwe Ltd is K6.5 and this is expected to grow at a rate of 7% per year for the near future. Chibwe Ltd has a cost of debt of 9% per year and cost of equity of 15%.

Assume 365 days in a year.

Required:

(a) Evaluate whether the adoption of the new proposal will benefit Chibwe Ltd.

(10 marks)

(b) Calculate the following values for each K1,000 convertible bond:

(i) Current market value;

(ii) Current floor value;

(iii) Conversion premium.

(10 marks)

[Total: 20 Marks]

QUESTION THREE

The following projected financial information relates to Marko Plc, a wholesale company:

Year	1	2	3	4
Earnings Before Tax (K'm)	6.1	6.8	7.3	7.5

The projections for earnings before tax takes into account depreciation of non-current assets recently acquired costing K40 million. Its first deprecation charge is included in the projection of the earnings before tax of year one (1) and subsequently in the other years respectively. Accounting depreciation is 20% per year on a reducing balance basis and annual corporate tax is 25%, payable in the same year. The non-current assets does not qualify for capital allowances. The earnings after tax from the fourth year are expected to grow at 6% per year in the near future. The minimum expected return is 15%.

Required:

(a) Estimate the value of the company based on the present value of expected earnings. (11 marks)

(b) Explain the circumstances under which the Net Asset valuation method might be appropriate for use in business valuation process. (6 marks)

(c) Explain three (3) reasons for undertaking a business valuation. (3 marks)

[Total: 20 Marks]

QUESTION FOUR

Double Ltd, an electronic company has a close competitor, Juba Ltd, although they seem to take a different business approach. One of them prides itself on personal service and the other on competitive prices. The following financial information in the table below relates to the two (2) companies:

Ratio	Double Ltd	Juba Ltd
Return on capital employed (ROCE)	21%	18%
Return on equity (ROE)	30%	19%
Average receivables settlement period	64 days	22 days
Average payables settlement period	52 days	46 days
Gross profit margin	42%	16%
Net profit margin	11%	11%
Inventories turnover period	53 days	27 days

The Managers of Double Ltd are considering an investment of K4 million in new machine. The before tax cash savings of K1.3 million per year are expected in current price terms. The savings are projected to increase by 5.2% per year due to inflation during the five-year life of the machine. Double Ltd has a money cost of capital of 14% and annual corporate tax rate of 25%, payable in the same year.

Required:

(a) Using the financial information in the table above, analyse the performance of the two (2) companies and state which one prides on personal service and the one on competitive prices. (12 marks)

(b) Advise whether Double Ltd should invest in the machine or not. (8 marks)

[Total: 20 Marks]

<u>QUESTION FIVE</u>

MMK Ltd, a growth company manufactures a range of quality electric appliances for sale to Hardware outlet shops across the countries. Following the increasing demand for the business's products, the directors have decided to expand production. The cost of acquiring new plant and machinery and the increase in working capital requirements are planned to be financed by a mixture of long-term and short-term borrowing. However, the managers of MMK Ltd are also wary of overtrading and overcapitalisation of working capital. This follows the recent collapse of most growth companies in the country due to overtrading and overcapitalisation as reported in the Accountant Journal by Zambia Institute of Chartered Accountants (ZiCA). Most growth companies face high risk and uncertainty.

Required:

(a) Discuss four (4) major factors that should be taken into account when deciding on the appropriate mix of long-term and short-term borrowing necessary to finance the expansion programme. (8 marks)

(b) Distinguish between overtrading and overcapitalization. (8 marks)

(c) Distinguish between risk and uncertainty in the context of finance. (4 marks)

[Total: 20 Marks]

END OF PAPER

Formulae

Modigliani and Miller Proposition 2 (with tax)

$$k_e = k_e^i + (1 - T)(k_e^i - k_d)\frac{V_d}{V_e}$$

Two asset portfolio

$$s_p = \sqrt{w_a^2 s_a^2 + w_b^2 s_b^2 + 2w_a w_b r_{ab} s_a s_b}$$

The Capital Asset Pricing Model

$$E(r_i) = R_f + \beta_i(E(r_m) - R_f)$$

The asset beta formula

$$\beta_a = \left[\frac{V_e}{(V_e + V_d(1 - T))}\beta_e\right] + \left[\frac{V_d(1 - T)}{(V_e + V_d(1 - T))}\beta_d\right]$$

The Growth Model

$$P_o = \frac{D_o(1 + g)}{(r_e - g)}$$

Gordon's growth approximation

$$g = br_e$$

The weighted average cost of capital

$$WACC = \left[\frac{V_e}{V_e + V_d}\right]k_e + \left[\frac{V_d}{V_e + V_d}\right]k_d(1 - T)$$

The Fisher formula

$$(1 + i) = (1 + r)(1 + h)$$

Purchasing power parity and interest rate parity

$$S_1 = S_0 x \frac{(1 + h_c)}{(1 + h_b)} \qquad F_0 = S_0 x \frac{(1 + i_c)}{(1 + i_b)}$$

Modified Internal Rate of Return

$$MIRR = \left[\frac{PV_R}{PV_I}\right]^{\frac{1}{n}} \left(1 + r_e\right) - 1$$

The Black-Scholes option pricing model

$$c = P_a N(d_1) - P_e N(d_2) e^{-rt}$$

Where:

$$d_1 = \frac{\ln(P_a / P_e) + (r + 0.5s^2)t}{s\sqrt{t}}$$

$$d_2 = d_1 - s\sqrt{t}$$

The Put Call Parity relationship

$$p = c - P_a + P_e e^{-rt}$$

Present Value Table

Present value of 1 i.e. $(1 + r)^{-n}$

Where r = discount rate
n = number of periods until payment

Discount rate (r)

Periods (n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0·990	0·980	0·971	0·962	0·952	0·943	0·935	0·926	0·917	0·909	1
2	0·980	0·961	0·943	0·925	0·907	0·890	0·873	0·857	0·842	0·826	2
3	0·971	0·942	0·915	0·889	0·864	0·840	0·816	0·794	0·772	0·751	3
4	0·961	0·924	0·888	0·855	0·823	0·792	0·763	0·735	0·708	0·683	4
5	0·951	0·906	0·863	0·822	0·784	0·747	0·713	0·681	0·650	0·621	5
6	0·942	0·888	0·837	0·790	0·746	0·705	0·666	0·630	0·596	0·564	6
7	0·933	0·871	0·813	0·760	0·711	0·665	0·623	0·583	0·547	0·513	7
8	0·923	0·853	0·789	0·731	0·677	0·627	0·582	0·540	0·502	0·467	8
9	0·941	0·837	0·766	0·703	0·645	0·592	0·544	0·500	0·460	0·424	9
10	0·905	0·820	0·744	0·676	0·614	0·558	0·508	0·463	0·422	0·386	10
11	0·896	0·804	0·722	0·650	0·585	0·527	0·475	0·429	0·388	0·305	11
12	0·887	0·788	0·701	0·625	0·557	0·497	0·444	0·397	0·356	0·319	12
13	0·879	0·773	0·681	0·601	0·530	0·469	0·415	0·368	0·326	0·290	13
14	0·870	0·758	0·661	0·577	0·505	0·442	0·388	0·340	0·299	0·263	14
15	0·861	0·743	0·642	0·555	0·481	0·417	0·362	0·315	0·275	0·239	15

(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0·901	0·893	0·885	0·877	0·870	0·862	0·855	0·847	0·840	0·833	1
2	0·812	0·797	0·783	0·769	0·756	0·743	0·731	0·718	0·706	0·694	2
3	0·731	0·712	0·693	0·675	0·658	0·641	0·624	0·609	0·593	0·579	3
4	0·659	0·636	0·613	0·592	0·572	0·552	0·534	0·516	0·499	0·482	4
5	0·593	0·567	0·543	0·519	0·497	0·476	0·456	0·437	0·419	0·402	5
6	0·535	0·507	0·480	0·456	0·432	0·410	0·390	0·370	0·352	0·335	6
7	0·482	0·452	0·425	0·400	0·376	0·354	0·333	0·314	0·296	0·279	7
8	0·434	0·404	0·376	0·351	0·327	0·305	0·285	0·266	0·249	0·233	8
9	0·391	0·361	0·333	0·308	0·284	0·263	0·243	0·225	0·209	0·194	9
10	0·352	0·322	0·295	0·270	0·247	0·227	0·208	0·191	0·176	0·162	10
11	0·317	0·287	0·261	0·237	0·215	0·195	0·178	0·162	0·148	0·135	11
12	0·286	0·257	0·231	0·208	0·187	0·168	0·152	0·137	0·124	0·112	12
13	0·258	0·229	0·204	0·182	0·163	0·145	0·130	0·116	0·104	0·093	13
14	0·232	0·205	0·181	0·160	0·141	0·125	0·111	0·099	0·088	0·078	14
15	0·209	0·183	0·160	0·140	0·123	0·108	0·095	0·084	0·074	0·065	15

Annuity Table

Present value of an annuity of 1 i.e. $\frac{1-(1+r)^{-n}}{r}$

Where r = discount rate
n = number of periods

Discount rate (r)

Periods (n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0·990	0·980	0·971	0·962	0·952	0·943	0·935	0·926	0·917	0·909	1
2	1·970	1·942	1·913	1·886	1·859	1·833	1·808	1·783	1·759	1·736	2
3	2·941	2·884	2·829	2·775	2·723	2·673	2·624	2·577	2·531	2·487	3
4	3·902	3·808	3·717	3·630	3·546	3·465	3·387	3·312	3·240	3·170	4
5	4·853	4·713	4·580	4·452	4·329	4·212	4·100	3·993	3·890	3·791	5
6	5·795	5·601	5·417	5·242	5·076	4·917	4·767	4·623	4·486	4·355	6
7	6·728	6·472	6·230	6·002	5·786	5·582	5·389	5·206	5·033	4·868	7
8	7·652	7·325	7·020	6·733	6·463	6·210	5·971	5·747	5·535	5·335	8
9	8·566	8·162	7·786	7·435	7·108	6·802	6·515	6·247	5·995	5·759	9
10	9·471	8·983	8·530	8·111	7·722	7·360	7·024	6·710	6·418	6·145	10
11	10·37	9·787	9·253	8·760	8·306	7·887	7·499	7·139	6·805	6·495	11
12	11·26	10·58	9·954	9·385	8·863	8·384	7·943	7·536	7·161	6·814	12
13	12·13	11·35	10·63	9·986	9·394	8·853	8·358	7·904	7·487	7·103	13
14	13·00	12·11	11·30	10·56	9·899	9·295	8·745	8·244	7·786	7·367	14
15	13·87	12·85	11·94	11·12	10·38	9·712	9·108	8·559	8·061	7·606	15

(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0·901	0·893	0·885	0·877	0·870	0·862	0·855	0·847	0·840	0·833	1
2	1·713	1·690	1·668	1·647	1·626	1·605	1·585	1·566	1·547	1·528	2
3	2·444	2·402	2·361	2·322	2·283	2·246	2·210	2·174	2·140	2·106	3
4	3·102	3·037	2·974	2·914	2·855	2·798	2·743	2·690	2·639	2·589	4
5	3·696	3·605	3·517	3·433	3·352	3·274	3·199	3·127	3·058	2·991	5
6	4·231	4·111	3·998	3·889	3·784	3·685	3·589	3·498	3·410	3·326	6
7	4·712	4·564	4·423	4·288	4·160	4·039	3·922	3·812	3·706	3·605	7
8	5·146	4·968	4·799	4·639	4·487	4·344	4·207	4·078	3·954	3·837	8
9	5·537	5·328	5·132	4·946	4·772	4·607	4·451	4·303	4·163	4·031	9
10	5·889	5·650	5·426	5·216	5·019	4·833	4·659	4·494	4·339	4·192	10
11	6·207	5·938	5·687	5·453	5·234	5·029	4·836	4·656	4·486	4·327	11
12	6·492	6·194	5·918	5·660	5·421	5·197	4·988	4·793	4·611	4·439	12
13	6·750	6·424	6·122	5·842	5·583	5·342	5·118	4·910	4·715	4·533	13
14	6·982	6·628	6·302	6·002	5·724	5·468	5·229	5·008	4·802	4·611	14
15	7·191	6·811	6·462	6·142	5·847	5·575	5·324	5·092	4·876	4·675	15

Standard normal distribution table

	0·00	0·01	0·02	0·03	0·04	0·05	0·06	0·07	0·08	0·09
0·0	0·0000	0·0040	0·0080	0·0120	0·0160	0·0199	0·0239	0·0279	0·0319	0·0359
0·1	0·0398	0·0438	0·0478	0·0517	0·0557	0·0596	0·0636	0·0675	0·0714	0·0753
0·2	0·0793	0·0832	0·0871	0·0910	0·0948	0·0987	0·1026	0·1064	0·1103	0·1141
0·3	0·1179	0·1217	0·1255	0·1293	0·1331	0·1368	0·1406	0·1443	0·1480	0·1517
0·4	0·1554	0·1591	0·1628	0·1664	0·1700	0·1736	0·1772	0·1808	0·1844	0·1879
0·5	0·1915	0·1950	0·1985	0·2019	0·2054	0·2088	0·2123	0·2157	0·2190	0·2224
0·6	0·2257	0·2291	0·2324	0·2357	0·2389	0·2422	0·2454	0·2486	0·2517	0·2549
0·7	0·2580	0·2611	0·2642	0·2673	0·2704	0·2734	0·2764	0·2794	0·2823	0·2852
0·8	0·2881	0·2910	0·2939	0·2967	0·2995	0·3023	0·3051	0·3078	0·3106	0·3133
0·9	0·3159	0·3186	0·3212	0·3238	0·3264	0·3289	0·3315	0·3340	0·3365	0·3389
1·0	0·3413	0·3438	0·3461	0·3485	0·3508	0·3531	0·3554	0·3577	0·3599	0·3621
1·1	0·3643	0·3665	0·3686	0·3708	0·3729	0·3749	0·3770	0·3790	0·3810	0·3830
1·2	0·3849	0·3869	0·3888	0·3907	0·3925	0·3944	0·3962	0·3980	0·3997	0·4015
1·3	0·4032	0·4049	0·4066	0·4082	0·4099	0·4115	0·4131	0·4147	0·4162	0·4177
1·4	0·4192	0·4207	0·4222	0·4236	0·4251	0·4265	0·4279	0·4292	0·4306	0·4319
1·5	0·4332	0·4345	0·4357	0·4370	0·4382	0·4394	0·4406	0·4418	0·4429	0·4441
1·6	0·4452	0·4463	0·4474	0·4484	0·4495	0·4505	0·4515	0·4525	0·4535	0·4545
1·7	0·4554	0·4564	0·4573	0·4582	0·4591	0·4599	0·4608	0·4616	0·4625	0·4633
1·8	0·4641	0·4649	0·4656	0·4664	0·4671	0·4678	0·4686	0·4693	0·4699	0·4706
1·9	0·4713	0·4719	0·4726	0·4732	0·4738	0·4744	0·4750	0·4756	0·4761	0·4767
2·0	0·4772	0·4778	0·4783	0·4788	0·4793	0·4798	0·4803	0·4808	0·4812	0·4817
2·1	0·4821	0·4826	0·4830	0·4834	0·4838	0·4842	0·4846	0·4850	0·4854	0·4857
2·2	0·4861	0·4864	0·4868	0·4871	0·4875	0·4878	0·4881	0·4884	0·4887	0·4890
2·3	0·4893	0·4896	0·4898	0·4901	0·4904	0·4906	0·4909	0·4911	0·4913	0·4916
2·4	0·4918	0·4920	0·4922	0·4925	0·4927	0·4929	0·4931	0·4932	0·4934	0·4936
2·5	0·4938	0·4940	0·4941	0·4943	0·4945	0·4946	0·4948	0·4949	0·4951	0·4952
2·6	0·4953	0·4955	0·4956	0·4957	0·4959	0·4960	0·4961	0·4962	0·4963	0·4964
2·7	0·4965	0·4966	0·4967	0·4968	0·4969	0·4970	0·4971	0·4972	0·4973	0·4974
2·8	0·4974	0·4975	0·4976	0·4977	0·4977	0·4978	0·4979	0·4979	0·4980	0·4981
2·9	0·4981	0·4982	0·4982	0·4983	0·4984	0·4984	0·4985	0·4985	0·4986	0·4986
3·0	0·4987	0·4987	0·4987	0·4988	0·4988	0·4989	0·4989	0·4989	0·4990	0·4990

This table can be used to calculate $N(d)$, the cumulative normal distribution functions needed for the Black-Scholes model of option pricing. If $d_i > 0$, add 0·5 to the relevant number above. If $d_i < 0$, subtract the relevant number above from 0·5.

CA 2.5: FINANCIAL MANAGEMENT SUGGESTED SOLUTIONS

SOLUTION ONE

(a)

(i) Net Present Value

Project A	Year 1	Year 2 to 5	Year 6 to 10
Net accounting profit	-1,500.00	2,700.00	3,000.00
Add: Depreciation	580.00	580.00	580.00
Net cash flows	- 920.00	3,280.00	3,580.00
Discount@16%	0.862	2.412	1.559
Present Values	**- 793.04**	**7,911.36**	**5,581.22**

Total Present Values	12,699.54
Less: Investment Cost	-7,000.00
Add: Disposal Value (K1,200 x 0.227)	272.40
Add: Capital allowances (116 x 4.833)	560.63
NPV	**6,532.57**

Project B	Year 1	Year 2 to 5	Year 6 to 10
Net accounting profit	-2,000.00	1,900.00	4,500.00
Add: Depreciation	750.00	750.00	750.00
Net cash flows	-1,250.00	2,650.00	5,250.00
Discount@16%	0.862	2.412	1.559
Present Values	**-1,077.50**	**6,391.80**	**8,184.75**

Total Present Values	13,499.05
Less: Investment Cost	-10,000.00
Add: Disposal Value (K2,500 x 0.227)	567.50

Add: Capital allowances (150 x 4.833)	724.95
NPV	**4,791.50**

Project A should be selected because it has higher NPV compared to Project B.

(ii) Payback Period

Project A

Year	Cash flow	Balance
0	- 7,000.00	- 7,000.00
1	- 920.00	- 7,920.00
2	3,280.00	- 4,640.00
3	3,280.00	- 1,360.00
4	3,280.00	1,920.00
		0.41
Payback period	3.41 years	

Project B

Year	Cash flow	Balance
0	- 10,000.00	- 10,000.00
1	- 1,250.00	- 11,250.00
2	2,650.00	- 8,600.00
3	2,650.00	- 5,950.00
4	2,650.00	- 3,300.00
5	2,650.00	-650.00
6	5,250.00	4,600.00
		0.12
Payback period	5.12 years	

Project A should be selected because it has a lower payback period compared to Project B

(iii) Accounting Rate of Return

Year	Project A	Project B
1	- 1,500.00	- 2,000.00
2 to 5	10,800.00	7,600.00
6 to 10	15,000.00	22,500.00
Average Profit	2,430.00	2,810.00

Average Investment	4,100.00	6,250.00
ARR	**59%**	**45%**

Project A should be selected because it a higher ARR compared to Project B

Investment Appraisal Method	Project A	Project B
NPV	6,532.57	4,791.50
PBP	3.41 years	5.12 years
ARR	59%	45%

Based on all the investment appraisal methods employed, Project A should be selected because it is more viable.

Workings

1.Discount rate

Ba=Be x Ve/Ve+Vd (1-t)

0.75= Be x 0.8/0.8 + 0.2(1-0.8)

Be= 0.9

CAPM = 10% X 0.9 (18%-10%)
=17.2%

Cost of Debt
Interest cost = 10% x 1000 x 0.8 = K80

	CF	DIS@10%	PV	DIS@4%	PV
Market Value	-1,000	1	- 1,000	1	- 1,000
Interest cost - 1 to 10 year	80	6.145	492	8.111	649
Redemption	1,100	0.386	425	0.676	744
NPV			- **84**		**392**

IRR = 4% + 392/392+84 (10%-4%)

Cost of Debt = 8.94%

WACC = (17.2% X 0.8) + (8.94% X 0.2)

WACC= 15.5% round off to 16%

	Project A	Project B
1. Depreciation = Cost - Scrap /life	580.00	750.00
Capital allowances @ 20%	116.00	150.00
2. Annuity Factors		
Year 2 to 5 (3.274 - 0.862) =2.412	2.412	
Year 6 to 10 (4.833 - 3.274)= 1.559	1.559	

(b)

Advantages of IRR

1. The main advantage of the IRR method is that managers more easily understand the information it provides than NPV, especially non-financial managers.

2. It gives a relative measure of the value of a proposed investment in the form of a percentage that can be compared with the company's cost of capital or the rates of interest and inflation.

Disadvantages of IRR

1. IRR ignores the relative sizes of investments. It therefore does not measure the absolute increase in company value, and therefore shareholder wealth, which will be created by an investment.
2. Where cash flow patterns are non-conventional, for example cash flows change from positive to negative during the life of the project, there may be several IRRs which decision makers must be aware of to avoid making the wrong decision. When discount rates are expected to differ over the life of the project, such variations can be incorporated easily into NPV calculations, but not into IRR calculations.
3. Mutually exclusive projects are two or more projects from which only one can be chosen. Examples include the choice of a factory location or the choice of just one of a number of machines. The IRR and NPV methods can, however, give conflicting rankings as to which project should be given priority. Where there is a conflict, NPV always offers the technically correct investment advice.

The following are some of the ways of how profit might be manipulated:

1. **Recording Revenue Prematurely for instance,** recording revenue prior to completing all services/goods, recording revenue prior to product shipment and recording revenue for products that are not required to be purchased.
2. **Recording Fictitious Revenue** for instance, recording revenue for sales that did not take place, recording investment income as revenue and recording proceeds received through a loan as revenue.
3. **Increasing Income with One-Time Gains** for instance, increasing profits by selling assets and recording the proceeds as revenue and increasing profits by classifying investment income or gains as revenue.

4. **Shifting Current Expenses to an Earlier or Later Period** for instance, amortizing costs too slowly, changing accounting standards to foster manipulation and capitalizing normal operating costs in order to reduce expenses by moving them from the statement of profit or loss to the statement of financial position and failing to write down or write off impaired assets.
5. **Failing to Record or Improperly Reducing Liabilities** for instance, failing to record expenses and liabilities when future services remain and changing accounting assumptions to foster manipulation.

SOLUTION TWO

	K'm	K'm
Current level of investment in receivables		
[K900m × (65/365)]		160.27
Proposed level of investment in receivables:		
[(K900m× 70%) × (30/365)]	(51.78)	
[(K900m × 30%) × (45/365)]	(33.29)	(85.07)
Reduction in level of investment		75.2

The reduction in overdraft interest because of the reduction in the level of investment will be K75.2 million × 15% = K11.28 million.

		K'm	K'm
Cost of cash discounts offered			
(K900m × 70% × 3.5%)			(22.05)
Additional cost of credit administration			(10.00)
			(32.05)
Bad debt savings		26.50	
Interest charge savings (see above)	11.28	37.78	
Net savings/(cost) of policy each year			**5.73**

These calculations show that the Chibwe Ltd would save annual costs amounting to K5.73 million, if it implemented the new proposal. It would therefore be cheaper to adopt the new credit policy.

b)

(i) Dividend growth model method of valuation

Conversion value = $P_0 (1 + g)^n \times R$

Where

P0 = current ex-dividend ordinary share price = K6.5

g = expected annual growth of the ordinary share price = 7%

n = number of years to conversion = 5

R = number of shares received on conversion = 250

Conversion value = K6.5 × $(1 + 0.07)^5$ × 250 = K2,279

The conversion value is higher than the redemption value of K1,000 so conversion is expected.

The current market value is the sum of the present value of the future interest payments and the present value of the bond's conversion value.

Present value of K100 interest per annum for five years at 9% = 100 × 3.890 =K389

Present value of the conversion value = K2, 279 × 0.650= K1,481.35

Current market value of convertible bond = K389 + K1,481.35 = K1,870.35

(ii) **Floor value**

The floor value is the sum of the present value of the future interest payments and the present value of the redemption value.

Present value of K100 interest per annum for five years at 9% = 100 × 3.890 = K389

Present value of the redemption value = 1,000 × 0.650 = K650

Floor value of convertible bond = K389 + K650 = K1,039

(iii) **Conversion premium**

Conversion premium = current market value – current conversion value

Current conversion value = K6.5 × 250 = K1,625

Current market value = K1,870.35

Conversion premium = K1,870.35 – 1,625 = K245.35

As an amount per share = K245.35/250 = K0.98

SOLUTION THREE

(a) **Value of Company**

Year	**1**	**2**	**3**	**4**
	K'm	K'm	K'm	K'm
Earnings before tax	6.1	6.8	7.3	7.5
Add: Depreciation	8.00	6.40	5.12	4.10
Taxable earnings	14.10	13.20	12.42	11.60
Tax @25%	3.53	3.30	3.11	2.90
Earnings after tax	10.58	9.90	9.32	8.70
Discount@15%	0.870	0.756	0.658	0.572
Present Values	**9.20**	**7.48**	**6.13**	**4.97**

		Dis@15%	Value
PV for Year 1 to 4	27.79	1	27.79
PV beyond year 4 = CF4 (1+g)/ke-g	102.43	0.572	58.59
Total Value of company			**86.38**

Depreciation

Year	WDV	CA@20%
1	40	8.00
2	32	6.40
3	25.6	5.12
4	20.48	4.10

(b) **The net assets basis of valuation (NAV) might be used in the following circumstances:**

1. As a measure of the 'security' in a share value. A share might be valued using an earnings basis. This valuation might be higher or lower than the net asset value per share. If the earnings basis is higher, then if the company went into liquidation, the investor could not expect to receive the full value of his shares when the underlying assets were realised.

The asset backing for shares thus provides a measure of the possible loss if the company fails to make the expected earnings or dividend payments. Valuable tangible assets may be a good reason for acquiring a company, especially freehold property which might be expected to increase in value over time.

2. As a measure of comparison in a scheme of merger

A MERGER is essentially a business combination of two or more companies, of which none obtains control over any other. For example, if company A, which has a low asset backing, is planning a merger with company B, which has a high asset backing, the shareholders of B might consider that their shares' value ought to reflect this. It might therefore be agreed that a something should be added to the value of the company B shares to allow for this difference in asset backing.

3. As a 'floor value' for a business that is up for sale – shareholders will be reluctant to sell for less than the NAV. However, if the sale is essential for cash flow purposes or to realign with corporate strategy, even the asset value may not be realised.

(c) **Reasons for Undertaking Business Valuation**

1. Setting an issue price if the company is floating its shares
2. When shares are sold
3. For tax purposes
4. When shares are pledged as collateral for a loan

SOLUTION FOUR

(a) i) As you may observe, the ratios for Double Ltd and Juba Ltd reveal that the receivables turnover ratio for Double Ltd is three times that for Juba Ltd. Juba Ltd is therefore much quicker in collecting amounts outstanding from customers. On the other hand, there is not much difference between the two businesses in the time taken to pay trade payables.

It is interesting to compare the difference in the receivables and payables collection periods for each business. As Double Ltd allows an average of 64 days' credit to its customers, yet pays suppliers within 52 days, it will require greater investment in working capital than Juba Ltd, which allows an average of only 22 days to its credit customers but takes 46 days to pay its suppliers.
Double Ltd has a much higher gross profit percentage than Juba Ltd. However, the net profit percentage for the two businesses is identical. This suggests that Double Ltd has much higher overheads (as a percentage of sales revenue) than Juba Ltd. The inventories turnover period for Double Ltd is more than twice that of Juba Ltd. This may be due to the fact that Double Ltd maintains a wider range of goods in inventories in an attempt to meet customer requirements. The evidence therefore suggests that Double Ltd is the one that prides itself on personal service. The higher average settlement period for receivables is consistent with a more relaxed attitude to credit collection (thereby maintaining customer goodwill) and the high overheads are consistent with incurring the additional costs of satisfying customers' requirements. Double Ltd's high inventories levels are consistent with maintaining a wide range of inventories, with the aim of satisfying a range of customer needs.
Juba Ltd has the characteristics of a more price-competitive business. Its gross profit margin is much lower than that of Double Ltd, that is, a much lower gross profit for each K1 of sales revenue. However, overheads have been kept low, the effect being that the net profit percentage is the same as Double Ltd's. The low inventories turnover period and average collection period for receivables are consistent with a business that wishes to minimise investment in current assets, thereby reducing costs.

(b) **Financial Evaluation**

Year	1	2	3	4	5
	K'm	K'm	K'm	K'm	K'm
Cash savings before tax	1.37	1.44	1.51	1.59	1.68
Tax@25%	0.34	0.36	0.38	0.40	0.42
Net cash savings	1.03	1.08	1.14	1.19	1.26
Discount@14%	0.877	0.769	0.675	0.592	0.519
Present Values	**0.90**	**0.83**	**0.77**	**0.71**	**0.65**

	K'm
Total PVs	3.85
Less: Cost	4
NPV	**-0.15**

Advise: The investment should not be undertaken because it provides a negative NPV of (K0.15 million). Undertaking this investment would result in the shareholders wealth decreasing by (K0.15 million).

SOLUTION FIVE

(a) **The main factors to take into account are:**

1) **Risk.** If a business borrows, there is a risk that, at the maturity date of the loan, the business will not have the funds to repay the amount owing and will be unable to find a suitable form of replacement borrowing. With short-term loans, the maturity dates will arrive more quickly, and the type of risk outlined will occur at intervals that are more frequent.
2) **Matching**. A business may wish to match the life of an asset with the maturity date of the borrowing. In other words, long-term assets will be purchased with long-term loan funds. Long-term borrowing may also fund a certain level of current assets, which form part of the long-term asset base of the business. Short-term borrowing will fund those current assets that fluctuate owing to seasonality and so on. This approach to funding assets will help reduce risks for the business.
3) **Cost**. Interest rates for long-term loans may be higher than for short-term loans as investors may seek extra compensation for having their funds locked up for a long period. However, issue costs may be higher for short-term loans as there will be a need to refund at more intervals that are frequent.
4) **Flexibility**. Short-term loans may be more flexible. It may be difficult to repay long-term loans before the maturity period.

(b) **Overtrading** happens when a business expands too quickly without having the financial resources to support such a quick expansion. If suitable sources of finance are not obtained, overtrading can lead to business failure. Importantly, overtrading can occur even if a business is profitable. It is an issue of working capital and cash flow. Overtrading is, therefore, essentially a problem of growth. It is particularly associated with retail businesses who attempt to grow too fast. Overtrading is most likely to occur if:

1. Growth is achieved by making significant capital investment in production or operations capacity before revenues are generated.
2. Sales are made on credit and customers take too long to settle amounts owed.
3. Significant growth in inventories is required in order to trade from the expanding capacity.
4. A long-term contract requires a business to incur substantial costs before payments are made by customers under the contract.

Over capitalisation is when the working capital of the company is too high – which means a company has issued more debt and equity than its assets are worth. An overcapitalized company might be paying more than it needs to, in interest and dividends.

(c) **In finance**, risk is the probability that an actual return on an investment will be lower than the expected return. Risk can be applied to a situation where there are several possible outcomes on an investment and, based on past relevant experience, probabilities can be assigned to the various outcomes that could prevail. The risk may even lead to a gain rather than a loss. Uncertainty can be applied to a situation where there are several possible investment outcomes but there is little past relevant experience to enable the probability of the possible outcomes to be predicted. It has too many unknown variables that do not even allow one to estimate as to what is going to happen.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA APPLICATION ADVANCED DIPLOMA IN ACCOUNTANCY

CA 2.6: STRATEGIC BUSINESS ANALYSIS

WEDNESDAY 22 MARCH 2023

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

INSTRUCTIONS TO CANDIDATES

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

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

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

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

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

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

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

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

8. Present legible and tidy work.

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

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 GROWTH CHALLENGE AND THE ROLE OF CORE COMPETENCE

Most major growth activities in most companies go wrong. The vast majority of mergers and acquisitions end up in less growth, lost talent, and value destruction. The numbers vary, but an overview of the research puts the rate of failure of M&A activity at around 70%, based on capital benchmarks. Academics and consultants who have studied the high rate of failure are in widespread agreement that "cultural issues" may often be the deadly variable. "Organic," or internally-generated, growth and innovation efforts hardly fare better. Graveyards full of failed product launches and wasted opportunities attest to the fact that, despite convincing business cases, more often than not the people behind a major initiative simply couldn't do it, sell it, launch it, and understand it.

Coloplast's Dilemma

Coloplast is a global med-tech company and a market leader in intimate healthcare products. Founded by a Danish nurse determined to help her sister reclaim her dignity after a colostomy operation confined her to her room, Coloplast began developing the world's first stoma bags in 1954. Soon after its founding, Coloplast's stoma bags were being exported around the world. The company grew quickly and expanded into urology, wound, and skin care. The company now develops and sells a wide range of products that includes stoma bags, catheters, and advanced bandages.

After a successful first half century during which Coloplast established itself as a market leader in intimate healthcare and grew to become a sizeable player on the European medtech scene, it reached a point where double digit growth was no longer given. Competition in the medical technology space had grown fiercer, and the requirements of important stakeholders such as governments and capital markets had been upped. Coloplast had not changed much to adapt to these changing market dynamics.

Five (5) to ten (10) years ago, Coloplast began launching several initiatives in response. It outsourced production to Hungary and China, streamlined its sales setup, optimized processes, trimmed support functions, and focused on capital expenditures. An issue that remained to be addressed, however, was growth. While the company had built a strong position in Europe (due, as we will see, to core competences specific to these markets), it was reaching the limits of what was possible in its current markets, and needed guidance on how to pursue future growth. To guide its growth strategy, Coloplast wanted a "point of departure" rooted in a deep understanding of its unique culture and core competencies. To do this, Coloplast enlisted the help of R&D Associates to design and conduct a study of their own core competencies.

Source://www.epicpeople.org/a-case-for-ethnography-in-the-study-of-corporate-competencies/

Required:

(a) Identify the two (2) models used in an outside-in approach to analyse the Core Competences of an organization. Draw the diagrams. (6 marks)

(b) Discuss one of the two (2) models use in an outside-in approach in (a) above to analyse core competence of an organisation. (13 marks)

(c) Discuss with illustrations three (3) tests that can be used to evaluate the merits of one strategy over another and to gauge how good that strategy is. (9 marks)

(d) Advise Six (6) key stages in the strategic planning process. (12 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Answer Any Three (3) Questions.

<u>QUESTION TWO</u>

A central issue in strategic management is why some firms perform better than others. One answer to this question is the extent to which strategic leadership is exercised in the firm. It can also be argued that assembling a capable management team is a cornerstone of the organization. However the most important consideration is to fill managerial slots with smart people who are clear thinkers, good at figuring out what needs to be done, and the skilled in 'making it happen' and delivering results. This kind of influence is often referred to as Strategic Leadership. At its core, the essence of power, authority and politics in leadership is a matter of influencing, i.e. motivating, members of the organization to achieve the goals of the organization and get desired results. Charles Hill and Gareth Jones in their book strategic management, suggest that there are six (6) characteristics of effective Strategic Leaders in organizations.

Required:

(a) Discuss any four (4) characteristics of effective strategic Leaders in an organization as postulated by Charles Hill and Gareth. (12 marks)

(b) Discus the three (3) main strategic management elements. (6 marks)

(c) Discus the fundamental questions which need answers at the corporate level strategy level in an organization. (2 marks)

[Total: 20 Marks]

<u>QUESTION THREE</u>

Matoka Investment Limited is a Kitwe based Company dealing in petroleum and Lubricant Products with outlets in Lusaka, Mansa, Solwezi and Choma. It has a very innovative management with its founder Mr. Geoffrey Matoka as its executive Chairman. Him and his Managers believe in developing strategies that should guide how an organisation conducts its business and how it will achieve its target objectives.

Required:

(a) State five (5) benefits that Matoka Investments Limited will accrue from Strategic management of its company**.** (10 marks)

(b) Indicate any five (5) participants that will participate in the strategic management of this company. (5 marks)

(c) List any five (5) features that characterise the strategic management of a company.

(5 marks)

[Total: 20 Marks]

QUESTION FOUR

Further digitalization of core newspaper and magazines business was clearly important and would require substantial funding. There were also opportunities for the launch of new magazine titles in the country. Ntali Fredrick Chairman and the CEO for Aka-Tilimu publishers had K27.5 million approved by the board to invest in new opportunities. With over 1,500 direct employees and 1,000 agents, Fredrick was considering acquisition opportunities. Looking at buying off local media houses and television stations in the neighboring countries like DRC and Zimbabwe, He was also attracted by the possibility of buying undervalued assets in the old media and turning them around in the style of a private equity investor.

Required:

(a) Use the appropriate strategic tool to analyze the strategic options available for Aka-Tilimu publishers. (14 marks)

(b) Diversification can be chosen for a variety of reasons, some more value creating than others. Explain three (3) potential value-creating reasons for diversification.

(6 marks)

[Total: 20 Marks]

QUESTION FIVE

Mr. Mubita Akakandelwa has just been recruited by the Industrial Development Company (IDC) as Managing Director for newly created insurance company that will deal in both general and life for all local and foreign tracks traversing on Zambia roads. Mr Akakandelwa and his Staff in the new company have been requested to ensure that compensation of the high number of claims due to road accidents and operations of the firm should be efficiently managed to the satisfaction of stakeholders. Managing of an effective organisation is about producing results that meet the objectives of that organisation.

Required:

(a) Assessment of results requires that there be criteria, such as goals or objectives and that these be set ahead of time. There are five (5) suggested categories of criteria for assessing organisation results. Explain any four (4) of these categories.

(12 marks)

(b) Mr. Akakandelwa will need to have some form of power. State any four (4) bases of power that he is likely to use to run the company. (4 marks)

(c) In finding out how the company is performing, he will use four (4) groups of ratios. Point out these groups. (4 marks)

[Total: 20 Marks]

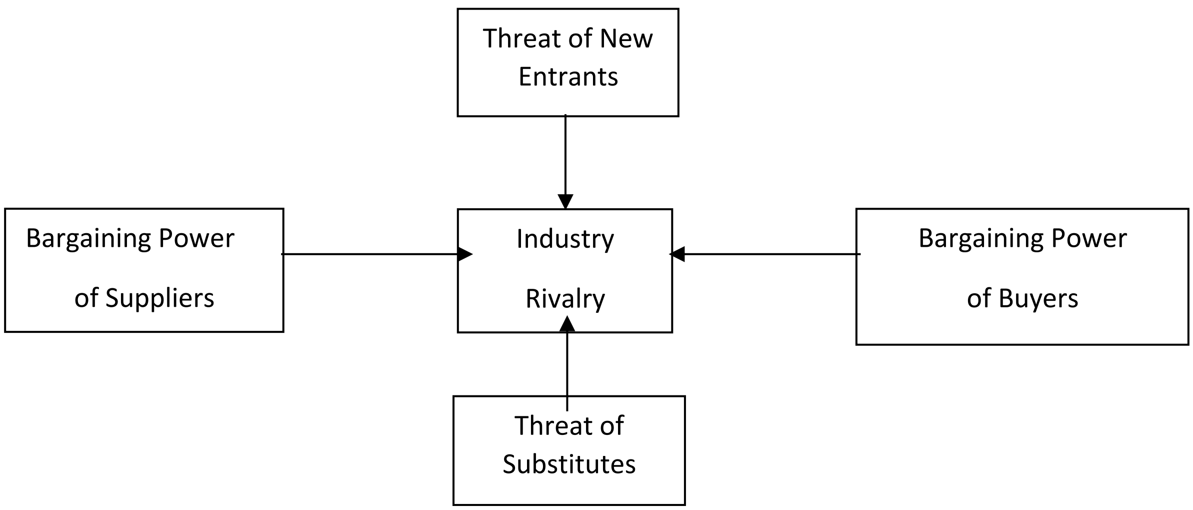
END OF PAPER

CA 2.6: STRATEGIC BUSINESS ANALYSIS SUGGESTED SOLUTIONS

SOLUTION ONE

(a) Identify the two models used in an outside-in approach to analyze the Core Competences of Coloplast company organization.

i. PORTER'S MODEL: FIVE COMPETITIVE FORCES



Source: Michael Porter, How Competitive Forces Shape Strategy, *Harvard Business Review*, March/April, 1979

ii. SWOT Analysis

STRENGTH	WEAKNESS
OPPORTUNITY	THREAT

(b) Discuss one of the two models to use in an outside-in approach in (a) above to analyse the core competences of an organisation.

i. **ANALYSING THE STRENGTH OF COMPETITIVE FORCES**

One of the cornerstones of industry and competitive analysis involves carefully studying the industry's competitive process to discover the main sources of competitive pressure and how strong they are. This analytical step is essential because managers cannot devise a successful strategy without understanding the industry's special competitive character.

ii. <u>Competition in an industry is a composite of five competitive forces</u>.

(a) The rivalry among competing sellers in the industry.

(b) The market attempts of companies in other industries to win customers to their own substitute products.

(c) The potential entry of new competitors.

(d) The bargaining power and leverage exercisable by suppliers of key raw materials and components.

(e) The bargaining power and leverage exercisable by buyers of the product.

Or alternatively

iii. SWOT ANALYSIS

STRENGTH

Is something a company is good at doing or a characteristic that give it an important capability. Strength can be a skill, skill, a competence, a valuable organizational resource or competitive capability that gives the company a market advantage.

A WEAKNESS

It is something a company lacks or does poorly (in comparison to others) or a condition that put it at a disadvantage. A company's internal strengths usually represent competitive assets. Its internal weaknesses, usually represent competitive liabilities. A company's strengths/assets should out outweigh its weaknesses/liabilities by a hefty margin. Successful strategists seek to exploit what a company does best – its expertise, strengths, core competences and strongest competitive ability to strategy making rests with:

1. The added capability it gives an organisation in going after a particular market opportunity.

2. the competitive edge it can yield in the market place and its potential for being a cornerstone of strategy.

OPPORTUNITIES

1. Market opportunities are a big factor in shaping a company's strategy.
2. Not every company in an industry is well positioned to peruse each opportunity that exists in the industry some companies are always better situated than others.
3. The industry opportunities most relevant to a particular company are those that offer important avenues for growth and those where a company has the most potential for competitive advantage.

THREATS

Are the factors in the company's external environment that poses threats to its well-being?

Threats can stem from the emergence of:

1. Cheaper technologies,
2. Rivals introduction of new or better products,
3. The entry of low – cost foreign competitors into a company's stronghold,
4. New regulations that is more burdensome to a company than to its competitors,
5. Vulnerability to a rise in interest rates is potential for a hostile takeover.

(c) Illustrations should center on each of the following tests.

1. The Goodness of Fittest

   A good strategy is well matched to the company's situation – both internal and external factors and its own capabilities and aspirations.

2. The competitive Advantage test

   A good strategy leads to sustainable competitive advantage. The bigger the competitive edge that a strategy helps builds the more powerful and effective it is.

3. The performance Test

   A good strategy boosts company performance. Two (2) kinds of performance improvements are the most telling, firstly in gains in profitability and secondly gains in the company's long-term business strength and competitive position.

(d) Advise Six (6) key stages in the strategic planning process.

1. Set Clear Goals and Define Key Variables

You must identify the goals that the new strategy should achieve. Without a clear picture of what you're trying to attain, it can be difficult to establish a plan for getting there.

2. Determine Roles, Responsibilities, and Relationships

Once you've determined the goals you're working toward and the variables that might get in your way, you should build a roadmap for achieving those goals, set expectations among your team, and clearly communicate your implementation plan, so there's no confusion.

3. Delegate the Work

Once you know what needs to be done to ensure success, determine who needs to do what and when. Refer to your original timeline and goal list, and delegate tasks to the appropriate team members.

4. Execute the Plan, Monitor Progress and Performance, and Provide Continued Support

Next, you'll need to put the plan into action. One of the most difficult skills to learn as a manager is how to guide and support employees effectively. While your focus will likely be on delegation much of the time, it's important to make yourself available to answer questions your employees might have, or address challenges and roadblocks they may be experiencing.

5. Take Corrective Action (Adjust or Revise, as Necessary)

Implementation is an iterative process, so the work doesn't stop as soon as you think you've reached your goal. Processes can change mid-course, and unforeseen issues or challenges can arise. Sometimes, your original goals will need to shift as the nature of the project itself changes.

6. Get Closure on the Project, and Agreement on the Output

Everyone on the team should agree on what the final product should look like based on the goals set at the beginning. When you've successfully implemented your strategy, check in with each team member and department to make sure they have everything they need to finish the job and feel like their work is complete.

7. Conduct a Retrospective or Review of How the Process Went

Once your strategy has been fully implemented, look back on the process and evaluate how things went. Ask yourself questions like:

- Did we achieve our goals?
- If not, why? What steps are required to get us to those goals?
- What roadblocks or challenges emerged over the course of the project that could have been anticipated? How can we avoid these challenges in the future?
- In general, what lessons can we learn from the process?

SOLUTION TWO

(a) Discuss any four (4) characteristics of effective strategic Leaders in an organization as postulated by Charles Hill and Gareth.

1 **Vision, eloquence and consistency**

One of the key tasks of a leader is to give an organization a sense of direction. Strategic leaders need to have a vision where the organization should go, they need to be eloquent (being able to express their ideas and opinions well, especially in a way that influences people) enough to communicate the vision to others within the organization in terms that will energize people, and consistently articulate their vision until it becomes part of the culture of the organization.

2 **Commitment**

Good leaders demonstrate their commitment to their vision by action and words and they often lead by example. Leading by example can mean doing what one preaches; this kind of commitment is a powerful signal to employees within the organization. If it is cost minimization, the CEO should be the first to adhere. It is this commitment by strategic leaders which can compel subordinates in the organization to work hard because they are able to see the unity of direction and unity of command from top down of the organization.

3 **Being well informed**

Effective strategic leader develop a network of formal and informal sources of information which keep them well informed about what is going on within and outside their company. Using informal and unconventional ways to gather information is wise because formal channels can be captured by other interests within the organization, or by gatekeepers, managers who may misrepresent the true state of affairs within the company. Managers who constantly interact with employees at all levels are better able to build information networks than leaders who closet themselves and never interact with lower level employees. It is actually the concept of be informed from all angels and make informed decision that will consider all the stakeholders to enhance goal achievement.

4 **Willingness to delegate and empower**

High – performance leaders are skilled at delegation. They recognize the fact that unless they learn how to delegate effectively, they can easily be overloaded with responsibilities. They also recognize that empowering subordinates to make decisions is a good motivation tool. Delegation also makes sense when it results in decision being made by those who must implement them and are experts in their area of specialization. Thus, although they will delegate many decisions to lower level employees, they will not delegate those they judge to be critical to the future success of the organization under their leadership.

5 **The Astute Use of Power**

According to the Longman Dictionary of Contemporary English, the word Astute refers to one who is "Able to understand situation or behaviour very well and very quickly, especially so that you can get advantage for yourself'. Effective leaders tend to be very Astute in their use of power, this means three things:

- Strategic Leaders must play a power game with skill and attempt to build the consensus for their ideas rather than use their authority to force ideas through: they act as a member or democratic leader of a coalition rather than as Dictator.
- Strategic leaders often hesitate to commit themselves publicly to detailed strategic plans or precise objectives, since in all probability the emergence of unexpected contingencies will require adaptation. Thus, a successful leader might commit the organization to a particular vision, such as minimizing costs or boosting product quality, without stating precisely how or when this will be achieved. Strategic leaders often have precise private objectives and strategies that they would like to see the organization pursue. However, they recognize the futility of public commitment given the likelihood of change and the difficulties of implementation.
- And thirdly, effective leaders possess the ability to push through the programs in piecemeal fashion. They recognize that on occasion, it may be futile to try to push total packages or strategic programs through the organization, since significant objections to at least part of such programs are likely to arise. Therefore, strategic leaders tries to push through ideas one piece at a time, so that they appear incidental to other ideas, though in fact they are part of the larger hidden agenda that that will move the organization in the direction of the manager's objectives.

6 **Emotional Intelligence (EQ)**

"Emotional Intelligence is ability to gather data from your emotions and the emotions of others and translate that into useful information. It is the idea of using your emotions, your feelings, and your moods, and the emotions, feelings, and moods of others, as a source of information and to use that information in a way that will help you navigate through life more effectively, It also involves creating emotional states that allow people to act more productively, to act more intelligently, to act more creatively." *(Hendrie Weisinger, author of Emotional Intelligence At Work.)*

(b) Discus the three main strategic management elements.

(i) **Strategic Position.** Understanding the organization environment, capabilities and shareholders influence.

(ii) **Strategic Choice.** Decisions being made at corporate and business level units.

(iii) **Strategic implementation.** Putting into action the strategy adopted by the organization. It includes, structuring, Enabling and change.

(c) Discus the fundamental questions which needs answers at the corporate level strategy level in an organization.

Corporate level strategy: This level answers the foundational question of what you want to achieve. Is it growth, stability, or retrenchment? Why do we exist? How will we behave? Where are we going? How will we succeed? What is most important right now?

SOLUTION THREE

(a) BENEFITS OF STRATEGIC MANAGEMENT

(i) It provides guidance to the entire organisation on what it is trying to achieve.
(ii) It makes management alert to changes in the environment. Managers will be looking for opportunities and threats in the environment and address them in advance.
(iii) It provides rationale to evaluate competing demands and budget requests for investment capital and technology.
(iv) It unifies the numerous strategies related decisions by managers across the organisation.
(v) It creates a more proactive posture and counteracts tendencies to be reactive and defensive.

(b) Indicate any five (5) participants that will participate in the strategic management of this company.

The following are the participants in the strategic management of the company.

1. **Chief Executive Officer (CEO)**
   He is the climate and culture moderator. He plays a major role in the success of the company.
2. **Functional Manager**
   They know the market situation. They are implementers of plans, so must be involved in planning.
3. **Lower level managers (operational supervisors**)
   This are the ones actually involved in every day to day implementation of strategies.
4. **Consultants**
   Evaluates plans and operations of organisation, when key players in the organisation are unable to find solutions themselves.
5. **Board of Directors**
   This is a legal body of people that supervise goal and strategy attainment in an organisation.

(c) List any five (5) features that characterise the strategic management of a company.

a. It has a market orientation.
b. It is Continuous Decision Making.
c. It has an entrepreneurial thrust.
d. It has a long-term horizon.
e. It has proactive strategies.
f. It may use multiple strategies.
g. It is interdisciplinary.
h. It is used as a basis for resource allocation.

SOLUTION FOUR

Required:

(a) Use the appropriate strategic tool to analyze the strategic options available for Aka-Tilimu publishers.

Ansoff Matrix

Ansoff's Matrix

	Existing product	New product
Existing market	**Market penetration** Increase sales to the existing market Penetrate more deeply into the existing market	**Product development** New product developed for existing markets
New market	**Market development** Existing products sold to new markets	**Diversification** New products sold in new markets

Strategy – Ansoff's Matrix tutor2u

(b) Diversification can be chosen for a variate of reasons, some more value creation than others. Explain potential value-creating reasons for diversification.

i- Efficiency gain- these are often described as economies of scope.

ii- Stretching corporate parenting capabilities into new markets and products or services can be another source of gain.

iii- Increasing market power can result from having a diverse range of business.

SOLUTION FIVE

(a) i. **Efficiency in this case is the degree to which an organisation is able to achieve its goals** of production of output relative to the amount of resources input it uses. It is also defined as the cost/benefit ratio incurred in pursuing organisational goals. Productivity is a common measure of efficiency and measures the amount of output per unit input.

ii. **Effectiveness in producing quality of results** which should be able to meet the needs of the customers. Effectiveness is also used to mean the extent to which operative goals or objectives are achieved. Although effectiveness can be measured quantitatively, it is in most instances measured qualitatively.

iii. **Employee satisfaction** is the degree to which employees feel their personal goals or needs are met as a result of their participation as members of the organisation. These interests or needs of employees may be satisfied by granting of some rewards intrinsic.

iv. **Adaptability to change.** This is the degree to which an organisation's results affect its own structure and processes to increase or decrease its ability to absorb, reject or otherwise deal with important changes in its environment in order to survive.

v. **The ability to acquire and manage resources**. This is the degree to which an organisation's results make it more or less able to get scarce and valued inputs and manage them in order to fulfill its functions. Resources include not only money, raw materials and labour but also the commitment of its employees to devote their energies to the organisations benefit.

(b) The power bases include the following:

i. **Legitimate power** = based rules and regulation and by virtual of hierarchy or appointment.

ii. **Reward power**. This is based on person ability to give reward for desired behaviour.

iii. **Coercive power** based on person's capacity to punish for failure to comply

iv. Expert power which based on knowledge one has.

v. **Referent power** = interpersonal relationships leader to the subordinate.

(c) The four main groups of ratios are:

i. **PROFITABILITY RATIOS** - Increase in cash is an inadequate measure of business success because commercial value is, at any time in a "going concern" business, held in many forms other than cash.

ii. **LIQUIDITY RATIOS** - It is quite possible for a business to be profitable and yet fail to meet its obligations because it is unable to collect in cash sufficient to meet debts as they fall due.

iii. **LEVERAGE RATIOS** - These ratios identify the sources of a firm's capital-owners and outside creditors.

iv. **ACTIVITY RATIOS** - These ratios indicate how effectively the firm is using its resources. The asset turnover ratio indicates how efficiently management is employing total assets and is calculated by dividing sales by total assets.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA 3.1: ADVANCED FINANCIAL REPORTING

MONDAY 20 MARCH 2023

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

INSTRUCTIONS TO CANDIDATES

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

   Section A: One (1) compulsory scenario question.

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

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

SECTION A

This question is compulsory and must be attempted.

QUESTION ONE – (COMPULSORY)

The following consolidated financial statements relate to Hakunakulala Group for the year to 30 April 2022.

Consolidated Statement of Profit or Loss and Other Comprehensive Income for the year ended 30 April 2022.

	K'm
Revenue	92,250
Cost of sales	(79,342)
Gross profit	12,908
Distribution costs	(1,570)
Administrative expenses	(2,128)
Finance cost	(1, 544)
Share of profit of associate	40
Profit on disposal of associate	100
Profit before tax	7,806
Income tax	(2,172)
Profit for the period	5,634
Other comprehensive income	
Net actuarial loss on defined benefit plan	(180)
Total comprehensive income	5,454
Profit for the year attributable to:	
Equity holders of the parent	4,952
Non-controlling interests	682
	5, 634

Total comprehensive income attributable to:	
Equity holders of the parent	4, 772
Non-controlling interests	682
	5,454

Hakunakulala Group: Consolidated Statement of Financial Position as at 30 April:

	2022 **K'm**	2021 **K'm**
ASSETS		
Non-current assets		
Property, plant and equipment	66,886	57,998
Goodwill	5,028	5,596
Intangible assets	920	1, 118
Investment in associate	-	420
	72,834	65,132
Current assets		
Inventories	15,922	14,644
Trade receivables	13,900	14,010
Investments	-	564
	29,822	29,218
TOTAL ASSETS	**102,656**	**94,350**
EQUITY AND LIABILITIES		
Equity		
Share capital	12,900	10,800
Reserves	44,124	39,352
	57,024	50,152
Non-controlling interest	6,176	5,612

TOTAL EQUITY	63,200	55,764
Non-current liabilities		
Long-term borrowings	18,402	18,040
Retirement benefit liability	760	660
	19,162	18,700
Current liabilities		
Trade payables	16,078	15,408
Bank overdraft	1,796	1,824
Income tax	2,332	2,654
Deferred consideration	88	-
	20,294	19,886
TOTAL EQUITY AND LIABILITIES	**102,656**	**94,350**

The following information is relevant:

1. It is the group policy to value the non-controlling interest at its proportionate share of the fair value of the subsidiary's identifiable net assets.

2. Hakunakulala group operates a defined benefit scheme. The current service cost and past service costs for the year ended 30 April 2022 were K300 million and K60 million respectively. Both the current service cost and the past service cost were charged to profit or loss (within administrative expenses). The net interest income was K240 million and this was also included in the defined benefit expense in administrative expenses.

3. On 1 January 2022 Hakunakulala disposed of its investment in an associate for K540 million. The share of profit in the income statement relates to a period from 1 May 2021 to 31 December 2021. Dividends of K20 million were received from the associate on 1 June 2021.

4. Hakunakulala issued equity shares for cash during the financial year.

5. Hakunakulala acquired a 70% holding in Mukapasa, a public limited company, on 1 May 2021. The fair values of the net assets acquired were as follows:

6.

	K'm
Property plant and equipment	210
Inventories	270

Total	480

The purchase consideration was K300 million in cash and K76 million (discounted value) deferred consideration which is payable on 1 May 2022. The difference between the discounted value of the deferred consideration (K76 million) and the actual amount payable on 1 May 2022 (K88 million) is included in 'finance costs'.

7. Goodwill in one of the group's subsidiaries suffered impairment during the year. The amount of the impairment was included in cost of sales.

8. The long-term borrowings are measured at amortised cost. The borrowing was taken out on 1 May 2020, and proceeds of K18, 000 million less issue costs of K300m were received on that date. Interest of 5% of the principal is paid in arrears each year, and the borrowings will be redeemed on 30 April 2025 for K19, 650 million. All interest obligations have been met on the due dates. The effective interest rate applicable to the borrowings is 7%. The finance cost in the income statement also includes interest in respect of the long-term borrowings and interest on overdrafts repayable on demand.

9. Amortisation of 25% of the opening balance of intangibles was charged to cost of sales.

10. A manufacturing patent was acquired for a cash payment on 30 April 2022.

11. Dividends were paid to non-controlling interests during the year, but no dividend was paid to the equity holders of the parent entity.

12. The current asset investments represent treasury bills with three (3) months to maturity.

13. Depreciation of K6,074 million was charged in respect of property, plant and equipment in the year ended 30 April 2022.

Directors' comments and other matters

The directors of Hakunakulala have commented that the indirect method of reporting cash flows from operating activities is more useful and informative to users of financial statements than the direct method.

Related party relationships are a particularly key concern when preparing financial statements for group entities. The objective of IAS 24 Related Party Disclosures is to ensure that financial statements contain necessary disclosures to make users aware of the possibility that financial statements may have been affected by the related parties.

Required:

(a) Prepare a Consolidated Statement of Cash Flows of the Hakunakulala Group for the financial year ended 30 April 2022 in accordance with requirements of IAS 7 Statement of Cash Flows.

(30 marks)

(b) Discuss the extent to which the directors' comment is valid. (5 marks)

(c) Describe the main circumstances that give rise to related parties and explain why disclosure of related party status and transactions is important. (5 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt any THREE (3) questions.

QUESTION TWO

You are the financial controller of Zicamunobe. Your assistant is preparing the first draft of the financial statements for the year ended 30 September 2022. He has a reasonable general accounting knowledge but is not familiar with the detailed requirements of all relevant international financial reporting standards. There are four technical issues on which he has written you separate e-mails seeking your advice:

(a) On 1 October 2021, we lent K2 million to a customer in order to assist them with their expansion plans. The loan cost us K100,000 to arrange, so I guess we need to charge K100,000 as a cost in the current year? We agreed not to charge interest on this loan to help our customer's short-term cash flow but expected the customer to repay K2.4 million on 30 September 2023. This will mean we can't take any profit this year but there will be a nice bonus next year when we receive repayment. I was told by the finance department that the effective annual rate of interest on this loan is 6.9%. I don't understand the relevance of this information as no interest is payable. (5 marks)

(b) On 1 October 2020, we bought a large machine for K20 million. This machine has an estimated useful life of eight (8) years, but will need a substantial overhaul on 30 September 2024 in order to enable it to be used for the final four (4) years of its estimated life. This overhaul is likely to cost K4 million, based on prices prevailing at 1 October 2020. If the overhaul occurs, the machine is expected to have a reasonable resale value at the end of its useful life. On 1 October 2020, the estimated residual value of the machine was K1 million. On 30 September 2021, this estimate was revised to K1.1 million and on 30 September 2022, the estimate was revised to K1.2 million. For some reason we didn't charge depreciation on this asset in the year to 30 September 2021. I think this was a mistake, so I suppose I should correct this by charging two (2) years depreciation in the current year? (5 marks)

(c) During the year ended 30 September 2022, we provided consultancy services to a customer regarding installation of a new production system. The system has caused the customer considerable problems, so the customer has taken legal action against us for the loss of profits that has arisen as a result of the problems with the system. Our legal department considers that there is a 25% chance the claim will be successfully defended, but a 75% chance that we will be required to pay damages of K1.6 million. We shouldn't suffer any overall loss because our legal people also tell me they are reasonably confident we are covered by insurance against this type of losses. We'll make a claim as soon as the outcome of the case is confirmed. I assume nothing needs to be provided for here because we are covered but do I need any note disclosures? (5 marks)

(d) On 1 July 2022, Zicamunobe decided to sell one of its divisions as a going concern following a recent change in its geographical focus. The proposed sale would involve the buyer acquiring the non-monetary assets (including goodwill) of the division, with Zicamunobe collecting any outstanding trade receivables relating to the division and settling any current liabilities. On 1 July 2022, the carrying amounts of the relevant assets of the division were as follows:

– Purchased goodwill, K600,000.

– Property, plant and equipment two (2) years estimated remaining useful life), K2 million.

– Inventories, K1 million.

From 1 July 2022, Zicamunobe began to actively market the division and has received a number of serious enquiries. On 1 July 2022, the directors estimated that they would receive K3.2 million from the sale of the division. Since 1 July 2022, market conditions have improved and on 31 October 2022 Zicamunobe received and accepted a firm offer to purchase the division for K3.3 million. The sale is expected to be completed on 31 December 2022. K3.3 million can be assumed to be a reasonable estimate of the value of the division on 30 September 2022. During the period from 1 July 2022 to 30 September 2022, inventories of the division costing K800,000 were sold for K1,200,000. At 30 September 2022, the total cost of the inventories of the division was K900,000. All of these inventories have an estimated net realisable value that is in excess of their cost. I am confused on the applicable standard. (5 marks)

Required:

Explain to your assistant how the above technical issues must be accounted for in the financial statements of Zicamunobe for the year ended 30 September 2022. **[Total: 20 Marks]**

QUESTION THREE

(a) Bonicontractor Co is a public limited company. It constructs premises for third parties. It has a year end of 28 February 2022. On 1 March 2021, Bonicontractor invested in a debt instrument with a fair value of K6 million and has assessed that the financial asset is aligned with the fair value through other comprehensive income business model. The instrument has an interest rate of 4% over a period of six (6) years. The effective interest rate is also 4%. On 1 March 2021, the debt instrument is not impaired in any way. During the year to 28 February 2022, there was a change in interest rates and the fair value of the instrument seemed to be affected. The instrument was quoted in an active market at K5.3 million but the price based upon an in-house model showed that the fair value of the instrument was K5.5 million. This valuation was based upon the average change in value of a range of instruments across a number of jurisdictions. The directors of Bonicontractor felt that the instrument should be valued at K5.5 million and that this should be shown as a Level 1 measurement under IFRS 13 Fair Value Measurement. There has not been a significant increase in credit risk since 1 March 2021, and expected credit losses should be measured at an amount equal to twelve (12) month expected credit losses of K400,000. Bonicontractor sold the debt instrument on 1 March 2022 for K5.3 million.

Required:

Explain to the directors of Bonicontractor how the above transaction must be accounted for in the financial statements of Bonicontractor until its sale on 1 March 2022. (10 marks)

(b) The directors of Bonicontractor are committed to producing high quality reports that enable its investors to assess the performance and position of the business. They have heard that the International Accounting Standards Board has published a Practice Statement on management commentary. However, they are unsure what is meant by management commentary, and the extent to which it provides useful information.

Required:

Discuss the nature of management commentary and the extent to which it embodies the qualitative characteristics of useful financial information (as outlined in the Conceptual Framework for Financial Reporting). (5 marks)

(c) One of the reasons why Bonicontractor prepares its financial statements using the SMEs Standard is because of the difficulties involved every time a new IFRS Standard is issued. The directors believe that the practicalities and financial statement implications of regularly implementing new IFRS Standards are overly onerous to an entity the size of Bonicontractor. However, Bonicontractor may have to transition to full IFRS Standards if it continues to grow in size.

Required:

Discuss the key practical considerations and financial statement implications that an entity must consider when implementing a new IFRS Standard. (5 marks)

[Total: 20 Marks]

QUESTION FOUR

(a) Peacelover required a new machine, which would be included as part of its property, plant and equipment. Peacelover therefore commenced construction of the machine on 1 February 2021, and this continued until its completion which was after the year end of 31 May 2021. The direct costs were K4 million in February 2016 and then K2 million in each subsequent month until the year end. Peacelover incurred finance costs on its general borrowings during the period, which could have been avoided if the machine had not been constructed. Peacelover has calculated that the weighted average cost of borrowings for the period 1 February 31 May 2021 on an annualised basis amounted to 9% per annum.

Required:

In accordance with IAS 23 Borrowing Cost, advise the directors of Peacelover on how the borrowing costs would be accounted for in the year ended 31 May 2021. (5 marks)

(b) Hamusonda Plc is a manufacturing entity with operations spread throughout Zambia. The directors of Hamusonda seek advice on the following two transactions.

(i) **Transaction 1**

Hamusonda issued shares during the financial year. Some of those shares were subscribed for by employees who were existing shareholders, and some were issued to an entity, Lindaboni, which owned 6% of Hamusonda's share capital. Before the shares were issued, Hamusonda offered to buy a building from Lindaboni and agreed that the purchase price would be settled by the issue of shares. Hamusonda requires advice as to whether these transactions should be accounted for under IFRS 2 Share-based Payment. (5 marks)

(ii) **Transaction 2**

Hamusonda has entered into a contract with a producer to purchase 700 tonnes of wheat. The purchase price will be settled in cash at an amount equal to the value of 5,000 of Hamusonda's shares. Hamusonda may settle the contract at any time by paying the producer an amount equal to the current market value of 5,000 of Hamusonda shares, less the market value of 700 tonnes of wheat. Hamusonda has no intention of taking physical delivery of the wheat. Hamusonda would like advice as to whether or not to account for this transaction as a share based payment transaction under IFRS 2 Share-based Payment. (5 marks)

Required:

Advise the directors of Hamusonda on their requests above.

(c) The directors of Hamusonda are unsure as to the differences between other comprehensive income and profit or loss and the rationale as to why some gains can be and others cannot be reclassified to profit or loss. Hamusonda has a defined benefit pension scheme and the directors have heard that local GAAP in some countries allows actuarial gains and losses (the remeasurement component) to be deferred using an applicable systematic method rather than being recognised immediately.

Required:

Discuss the differences between other comprehensive income and profit or loss and the rationale as to why some gains and losses can be and others cannot be reclassified to profit or loss. In your answer, include a brief discussion of the benefits of immediate recognition of the remeasurement component under IAS 19 Employee Benefits. (5 marks)

[Total: 20 Marks]

QUESTION FIVE

(a) Zamcell Ltd assembles telecommunication equipment and sells to wholesalers and retailers. The following ratios relate to the average figures for Zamcell's industry for the year ended 31 December, 2022:

Return on capital employed	20.10%
Gross profit margin	32%
Net profit (before tax) margin	12.50%
Current ratio	1.6:1
Acid-test ratio	0.9:1
Inventory turnover period	46 days
Trade receivable collection period	45 days
Debt-to-equity ratio	40%
Dividend yield	6%
Dividend cover	3 times

Zamcell's financial statements for the year to 31 December, 2022 are set out below:

Statement of Profit or Loss for the year ended 31 December, 2022

	K'000
Sales	48,500
Cost of sales	(37,400)
Gross profit	11,100
Operating expenses	(6,880)
Operating profit	4,220
Finance cost	(500)
Profit before taxation	3,720
Taxation	(1,800)
Profit after taxation	**1,920**

Extracts of Statement of Changes in Equity for the year ended 31 December, 2022

	K'000
Retained earnings as at 1 January 2022	3,580
Net profit after tax	1,920
	5,500
Dividends	(1,800)
Retained earnings as at 31 December 2022	**3,700**

Statement of Financial Position as at 31 December 2022

	K'000
Non-current assets	
Property, plant and equipment	10,800
Current Assets	
Inventories	5,500
Trade receivables	6,400
	11,900
Total assets	**22,700**
Equity	
Stated capital (Ordinary shares issued @ K0.25 per share)	3,000
Retained earnings	3,700
	6,700
Non-current Liabilities	
8% Debenture	6,000
Current liabilities	
Bank overdraft	1,300
Trade payables	7,000
Taxation	1,700
	10,000
Total equity and liabilities	**22,700**

(Note: The market price of Zamcell's shares throughout the year averaged K6.00 each.)

Required:

As the Financial Controller of Zamcell Ltd, write a report to the Board of Directors analysing the financial performance of Zamcell Ltd based on a comparison with the industry averages. (10 marks)

(b) Zamcell has three (3) distinct business segments. The management has calculated the net assets, turnover and profit before common costs, which are to be allocated to these segments. However, they are unsure as to how they should allocate certain common costs and whether they can exercise judgement in the allocation process. They wish to allocate head office management expenses; pension expense; the cost of managing properties and interest and related interest bearing assets. They also are uncertain as to whether the allocation of costs has to be in conformity with the accounting policies used in the financial statements.

Required:

Advise the management of Zamcell on the points raised in the above paragraph.(5 marks)

(c) The Directors of Zamcell have prepared forecasts for the next five (5) years and they are concerned that the company does not have sufficient liquid assets to fulfil its expansion plans. The directors propose to raise the required funds on 1 April 2033 in one of the following ways: (i) The issue of 5 million ordinary shares and (ii) The issue of 10 million convertible bonds in exchange for cash proceeds. Interest is payable annually in arrears. The bond holders will be able to redeem the bonds in form of cash or a fixed number of Zamcell's ordinary shares. The directors are unsure of the impact of the proposals on the financial statements.

Required:

Discuss the impact of the above proposals on the financial statements of Zamcell. Your answer should consider the potential impact on basic and diluted earnings per share and on the primary users' perception of Zamcell's financial performance and position. (5 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

$$S_1 = S_0 x \frac{(1 + h_c)}{(1 + h_b)} \qquad F_0 = S_0 x \frac{(1 + i_c)}{(1 + i_b)}$$

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

$$S_1 = S_0 x \frac{(1 + h_c)}{(1 + h_b)} \qquad F_0 = S_0 x \frac{(1 + i_c)}{(1 + i_b)}$$

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) **Hakunakulala Group: Consolidated statement of cash flows for the financial year ended 30 April 2022.**

Cash flows from operating activities	**K'm**	**K'm**
Profit before taxation	7,806	
Adjustments for:		-
Depreciation	6,074	
Impairment of goodwill (w1)	608	
Amortisation of intangibles (w3)	280	
Interest expense	1,544	
Profit on disposal of associate	(100)	
Share of profit of associate	(40)	
Retirement benefit expense (w4)	120	
Cash paid to defined benefit plan(w4)	(200)	
Operating profit before working capital changes	16,092	
Increase in inventories (15,922-14,644-270)	(1,008)	
Decrease in receivables (13,900-14,010)	110	

Increase in payables (16,078-15,408)	670	
Cash generated from operations	15,864	
Interest paid (w5)	(1, 170)	
Income taxes (w6)	(2,494)	
Net cash from operating activities		12,200
Cash flows from investing activities		
Purchase of property, plant & equipment (w7)	(14,752)	
Purchase of intangibles (w3)	(82)	
Proceeds from sale of associate	540	
Cash paid to acquire subsidiary	(300)	
Dividend received from associate	20	
Net cash used in investing activities		(14,574)
Cash flows from financing activities		
Issue of share capital (12, 900 – 10,800)	2,100	
Dividends paid to non-controlling interests(w8)	(262)	
Net cash from financing activities		1,838
Net decrease in cash and cash equivalents		(536)

Cash and cash equivalents at the beginning of the period (564-1,824)	(1, 260)
Cash and cash equivalents at the end of the period	(1,796)

(b) **Indirect and direct method**
The direct method presents separate categories of cash inflows and outflows whereas the indirect method is a reconciliation of profit before tax reported in the statement of profit or loss to the cash flow from operations. The adjustments include non-cash items in the statement of profit or loss plus operating cash flows that were not included in profit or loss. A problem for users is the fact that entities can choose the method used. This limits comparability. The majority of companies use the indirect method for the preparation of statements of cash flow. Most companies justify this on the grounds that the direct method is too costly. Users often prefer the direct method because it reports operating cash flows in understandable categories, such as cash collected from customers, cash paid to suppliers, cash paid to employees and cash paid for other operating expenses. When presented in this way, users can assess the major trends in cash flows and can compare these to the entity's competitors. The complicated adjustments required by the indirect method are difficult to understand and can be confusing to users. In many cases these adjustments cannot be reconciled to observed changes in the statement of financial position.

(c) IAS 24 Related Party Disclosures states that a person or a close member of their family is related to the reporting entity if that person:

- has control, joint control or significant influence over the reporting entity.
- is a member of the key management personnel of the reporting entity or its parent.

The main circumstances that lead to an entity being related to the reporting entity are as follows:

- the entity and the reporting entity are members of the same group.
- one entity is an associate or joint venture of the other.
- both entities are joint ventures of the same third party.
- the entity is controlled or jointly controlled by a person who is a related party of the reporting entity.

In the absence of related party disclosures, users of financial statements would assume that results of the reporting entity are such that; that entity operates independently and in its own best interests. Most importantly, they would assume that all transactions were been entered into willingly and at arm's length (i.e. on normal commercial terms at fair value). Where related party relationships and transactions exist, this assumption may not be justified. Related party relationships and transactions may distort the financial position and performance, both favourably and unfavourably. The most obvious example of this type of transaction would be the sale of goods from one party to another on non-commercial terms. It is a common misapprehension that related party transactions need only be disclosed if they are not on market terms. This is not the case. For example, a parent may instruct all members of its group to buy certain products or services (on commercial terms) from one of its subsidiaries. If the parent were to sell the subsidiary, it would be important for the prospective buyer to be aware that the related party transactions would probably not occur in the future. Even where there had been no related party transactions, it is still important for some related party matters to be disclosed. A subsidiary may obtain custom, receive favourable credit ratings, and benefit from a superior management team simply by being a part of a well-respected group. As such, an entity must always disclose information about its parent.

WORKINGS

1. Goodwill impairment	**K'm**
Balance b/fwd	5,596
On Acqusition (w2)	40
Impairment (balancing figure)	(608)
Balance c/fwd	5,028

2. Goodwill on acquisition of Mukapasa

Consideration	
	K'm
Cash	300
Deferred cash	76
Total consideration	376
NCI (30% x 480)	144
	520
	(480)

Share of fair value of net assets acquired	
Goodwill	40

3. Intangibles

	K'm
Balance b/fwd	1,118
Amortisation (1,118 x 25%)	(280)
Purchase of patent (balancing figure)	82
Balance c/fwd	920

4. Defined benefit liability

		K'm
Defined benefit liability b/fwd		660
Service costs (current and past service costs) (300+60)	360	
Net interest income	(240)	
Defined benefit expense in profit or loss		120
Remeasurement (actuarial) loss in OCI		180
Contributions paid(balancing figure)		(200)

Defined benefit liability c/fwd	760

5.Interest

Date	Balance b/fwd	Interest at 7%	Interest paid at 5% of principal	Balance c/fwd
	K'm	K'm	K'm	K'm
01/05/2020	17,700	1,240	(900)	18,040
01/05/2021	18,040	* 1,262	(900)	18,402
01/05/2022	18,402	1,288	(900)	18,790
01/05/2023	18,790	1,316	(900)	19,206
01/05/2024	19,206	1,344	(900)	19,650

	K'm
Total finance cost in income statement	1,544
Less: Interest (unwinding of discount) on long-term borrowings	*(1,262)
Less: Interest on deferred consideration (88-76)	(12)
Balance = Interest on overdrafts	270
Total cash outflow in respect of interest: (270 + 900)=	1,170

6. Income taxes

	K'm
Balance b/fwd	2,654
Income statement: provision	2,172
Paid (balancing figure)	(2,494)
Balance c/fwd	2,332

7. Property plant equipment and depreciation

	K'm
Net book value b/fwd	57,998
Depreciation	(6,074)
Acquisition of subsidiary	210
Additions (balancing figure)	14,752
Net book value c/fwd	66,886

8. Non-controlling interests (NCI)

	K'm
Balance b/fwd	5,612
TCI attributable to NCI	682

On acquisition of subsidiary (30% x 480m)	144
Dividend paid (balancing figure)	(262)
Balance c/fwd	6,176

SOLUTION TWO

(a) The loan to the customer would be regarded as a financial asset. The relevant accounting standard – IFRS 9 Financial instruments. Where the financial asset is one where the only expected future cash inflows are the receipts of principal and interest and the investor intends to collect these inflows rather than dispose of the asset to a third party, then IFRS 9 allows the asset to be measured at amortised cost using the effective interest method. Assuming this method is adopted, then the costs of issuing the loan are included in its initial carrying value rather than being taken to profit or loss as an immediate expense. This makes the initial carrying value K2·1 million. Under the effective interest method, part of the finance income is recognised in the current period rather than all in the following period when repayment is due. The income recognised in the current period is K144,900 (K2·1m x 6·9%). The financial asset at 30 September 2022 would be K2,244,900 (K2·1m + K144,900).

(b) Omitting to charge depreciation where material would be regarded as an error under the principles outlined in IAS 8 – Accounting Policies, Accounting Estimates and Errors. Where an error has retrospective effect, it is adjusted as a movement on retained earnings in the statement of changes in equity rather than through profit or loss. Because this is a complex asset, the depreciation charge is made on two identifiable components according to their fair values at the date of acquisition. The first 'asset' is the overhaul element which would have a depreciable amount of K4 million. The overhaul is not provided for as it is not certain that this will arise and hence the life of the first 'asset' is four years The depreciation charged on this 'asset' would be K1 million each year. The second 'asset' is the remainder, to which the estimated residual value is allocated entirely. The residual value is an accounting estimate which should be revised at the end of each accounting period. Therefore the depreciable amount for the year ended 30 September 2021 is K14·9 million (K20 million – K4 million – K1·1 million). This means that the depreciation on this 'asset' for the year ended 30 September 2021 is K1,862,500 (K14·9 million x 1/8). The depreciable amount of this 'asset' for the year ended 30 September 2022 is K12,937,500 (K16 million – K1,862,500 – K1,200,000). Therefore the depreciation charge on this 'asset' for the year ended 30 September 2022 is K1,848,214 (K12,937,500 x 1/7). The total depreciation charged to profit or loss for the year ended 30 September 2022 is therefore K2,848,214 (K1 million + K1,848,214).

(c) It is necessary to consider the two parts of this issue separately. The claim made by our customer needs to be recognised as a liability in the financial statements for the year ended 30 September 2022, since it is more probable than not that the legal suit cannot be successfully defended.

IAS 37 – Provisions, Contingent Liabilities and Contingent Assets – states that a provision should be made when, at the reporting date:

– An entity has a present obligation arising out of a past event.

– There is a probable outflow of economic benefits.

– A reliable estimate can be made of the outflow.

All three of these conditions are satisfied here, and so a provision is appropriate. The provision should be measured as the amount the entity would rationally pay to settle the obligation at the reporting date. Where there is a range of possible outcomes, the individual most likely outcome is often the most appropriate measure to use. In this case a provision of K1·6 million seems appropriate, with a corresponding charge to profit or loss.

The insurance claim against our supplier is a contingent asset. IAS 37 states that contingent assets should not be recognised until their realisation is virtually certain, but should be disclosed where their realisation is probable. This appears to be the situation we are in here. Therefore the contingent asset would be disclosed in the 2022 financial statements. Any credit to profit or loss is made when the claim is settled.

(d) The decision to offer the division for sale on 1 July 2022 with all implicit qualifying indicators per IFRS 5 means that from that date the division is classified as held for sale. The division is available for immediate sale, is being actively marketed at a reasonable price, and the sale is expected to be completed within one year. The consequence of this classification is that the assets of the division will be measured at the lower of their existing carrying amounts and their fair value less costs to sell. In this case, this means measuring the assets of the division at K3·2 million on 1 July 2022. The reduction in carrying value of the assets of K400,000 (K2 million + K1 million + K600,000 – K3·2 million) will be treated as an impairment loss and allocated to goodwill, leaving a carrying amount for goodwill of K200,000 (K600,000 – K400,000). The increased expectation of the selling price of K100,000 (K3·3 million – K3·2 million) will be treated as a reversal of an impairment loss. However, since this reversal relates to goodwill, it cannot be recognised. The assets of the division need to be presented separately from other assets in the statement of financial position. Their major classes should be separately disclosed, either on the face of the statement of financial position or in the notes. The property, plant and equipment should not be depreciated after 1 July 2022, so its carrying value at 30 September 2022 will be K2 million. The inventories of the division will be shown at their year-end cost of K900,000. The division will be regarded as a discontinued operation in the year ended 30 September 2022. It represents a separate line of business and is held for sale at the year end. The statement of comprehensive income should disclose, as a single amount, the post-tax profit or loss of the division and the impairment loss arising on the re-measurement of the division on classification as held for sale. Further analysis of this single amount can be presented on the face of the statement of comprehensive income, but it can be presented in the notes to the financial statements.

SOLUTION THREE

(a) Financial asset

According to IFRS 9 Financial Instruments, debt instruments measured at FVOCI are measured at fair value in the statement of financial position. Interest income is calculated using the effective interest rate. Fair value gains and losses on these financial assets are recognised in other comprehensive income (OCI). Expected credit losses (ECLs) do not reduce the carrying amount of the financial assets, which remains at fair value. Instead, an amount equal to the ECL allowance is recognised in OCI. When these financial assets are derecognised, the cumulative gains and losses previously recognised in OCI are reclassified from equity to profit or loss. The fair value of the debt instrument therefore needs to be ascertained at 28 February 2022. IFRS 13 Fair Value Measurement states that Level 1 inputs are unadjusted quoted prices in active markets for identical assets or liabilities which the entity can access at the measurement date. The standard sets out that adjustment to Level 1 prices should not be made except in certain circumstances. It would seem that a Level 1 input is available so there is no reason to use the 'in house' model. Therefore the accounting for the instrument should be as follows:

- The bonds will be initially recorded at K6 million.
- Interest of K0.24 million (K6 million x 4) will be received and credited to profit or loss.
- At 28 February 2022, the bonds will be valued at K5.3 million. The loss of K0.7 million (K6 million less K5.3 million) will be charged as an impairment loss of K0.4 million to profit or loss and K0.3 million to OCI.
- When the bond is sold for K5.3 million on 1 March 2022, the financial asset is derecognised and the loss in OCI (K0.3 million) is reclassified to profit or loss.

(b) Management commentary

Management commentary is a narrative report in which management provide context and background against which stakeholders can assess the financial position and performance of a company. It is not mandatory to produce a management commentary. However, if entities produce a management commentary then they should include information that is essential to an understanding of:

- the nature of the business
- management's objectives and its strategies for meeting those objectives.
- the entity's resources, risks and relationships.
- the results of operations and prospects, and
- the key performance measures that management use to evaluate the entity's performance. Management commentary should include forward-looking information. The commentary should be entity-specific, rather than generic.

Link to Conceptual Framework for Financial Reporting

The Practice Statement states that management commentary should include information that possesses the qualitative characteristics of useful financial information. The fundamental qualitative characteristics are relevance and faithful representation. The enhancing qualitative characteristics are understandability, verifiability, comparability and timeliness.

(c)

Practical considerations

When implementing a new accounting standard, an entity should prepare an impact assessment and project plan. The entity may need to spend money on training staff, or on updating or replacing its systems. New processes and controls may need to be developed and documented. New accounting standards will most likely contain new recognition, measurement and disclosure requirements. If the impact of these is not communicated then investors' assessments of how management has discharged its stewardship responsibilities may change and this could affect their investment decisions. As such, management should communicate the impact of a new standard to investors and other stakeholders, particularly if it will result in lower profits or increased liabilities. Banking agreements often specify maximum debt levels or financial ratios based on figures reported in the financial statements. New financial reporting requirements can affect those ratios, causing potential covenant breaches.

Dividends could be affected.

Many jurisdictions have regulations, which restrict the amount which can be paid out in dividends. This restriction is normally based on accounting profits. The impact of adopting a new IFRS Standard should be communicated to analysts. Some governments use information prepared under IFRS standards for statistical and economic planning purposes. Competitive advantage could be lost if a new financial reporting standard requires extensive disclosures. Bonus schemes may need to be re-assessed because the new standard could affect the calculation of performance-related pay. Financial statement implications Where there is the introduction of a new accounting standard, the financial statements will need to reflect the new recognition, measurement and disclosure requirements which, in turn, will mean that entities will need to consider the requirements of IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors. IAS 8 contains a requirement that changes in accounting policies are fully applied retrospectively unless there are specific transitional provisions contained in the new IFRS Standard being implemented. IAS 1 Presentation of Financial Statements requires a third statement of financial position to be presented if the entity retrospectively applies an accounting policy, restates items, or reclassifies items, and those adjustments had a material effect on the information in the statement of financial position at the beginning of the comparative period. IAS 33 Earnings per Share requires basic and diluted EPS to be adjusted for the impacts of adjustments resulting from changes in accounting policies accounted for retrospectively and IAS 8 requires the disclosure of the amount of any such adjustments. A change in an accounting standard can change the carrying amounts of assets and liabilities, which will have deferred tax consequences.

First time adoption of IFRS Standards

IFRS 1 First-time Adoption of IFRS says that an entity must produce an opening statement of financial position in accordance with IFRS Standards as at the date of transition. The date of transition is the beginning of the earliest period for which an entity presents full comparative information under IFRS Standards in its first financial statements produced using IFRS Standards. At the date of transition, the entity must:

• recognise all assets and liabilities required by IFRS Standards

• derecognise assets and liabilities not permitted by IFRS Standards

• reclassify assets, liabilities and equity in accordance with IFRS Standards

• measure assets and liabilities in accordance with IFRS Standards. Gains or losses arising on the adoption of IFRS Standards at the date of transition should be recognised directly in retained earnings.

SOLUTION FOUR

(a) Borrowing costs IAS 23

Borrowing Costs requires borrowing costs incurred when acquiring or constructing an asset to be capitalised if the asset takes a substantial period of time to be prepared for its intended use or sale. The definition of borrowing costs includes interest expense calculated by the effective interest method, finance charges on leases and exchange differences arising from foreign currency borrowings relating to interest costs. Borrowing costs should be capitalised during construction and include the costs of funds borrowed for the purpose of financing the construction of the asset, and general borrowings which would have been avoided if the expenditure on the asset had not occurred. The general borrowing costs are determined by applying a capitalisation rate to the expenditure on that asset.

The weighted-average carrying amount of the machine during the period is K7 million (K4m + K6m + K8m + K10m) / 4). The capitalisation rate of the borrowings of Peacelover during the period of construction is 9% per annum. The total amount of borrowing costs to be capitalised is the weighted-average carrying amount of the machine multiplied by the capitalisation rate. This amounts to K0.21 million (K7 million × 9% × 4/12).

(b)

Transaction 1

A share-based payment is when an entity receives goods or services in exchange for equity instruments or cash based on the value of equity instruments The shares issued to the employees were issued in their capacity as shareholders and not in exchange for their services. The employees were not required to complete a period of service in exchange for the shares. Thus the transaction is outside the scope of IFRS 2 Share-based payment. As regards Lindaboni, Hamusonda approached the company with the proposal to buy the building in exchange for shares. As such, the transaction comes under IFRS 2. Lindaboni is not an employee so the transaction will be recorded at the value of the goods received. This means that the building is recognised at its fair value and equity will be credited with the same amount.

Transaction 2

The arrangement is not within the scope of IFRS 2 Share-based Payment because Hamusonda is not expecting to take delivery of the wheat. This contract is within the scope of IFRS 9 Financial Instruments because it can be settled net and was not entered into for the purpose of the receipt or delivery of the item in accordance with the entity's expected purchase, sale, or usage requirements. The contract is a derivative because it meets the following criteria:

- Its value changes compared to an underlying item.
- It required no, or a low, initial investment.
- It is settled in the future

IFRS 9 Financial Instruments requires derivatives to be measured at fair value through profit or loss, unless the entity applies hedge accounting. The contract would be initially recognised at fair value. This would probably be nil as, under the terms of a commercial contract, the value of 5,000 shares should equate to the value of 700 tonnes of wheat. Derivatives are remeasured to fair value at each reporting date, with the gain or loss reported in the statement of profit or loss. The fair value would be based on the values of wheat and Hamusonda shares. The fair value gain or loss should be recorded in the statement of profit or loss.

(c)

Profit or loss includes all items of income and expense except those which are recognised in other comprehensive income (OCI) as required or permitted by IFRS Standards. There is a general lack of agreement about which items should be presented in profit or loss and in OCI. Currently, under IFRS Standards, there is a rules-based approach, leaving it to each individual standard to define where each gain or loss should be presented. For example, with pension schemes, the service cost is immediately recognised in profit or loss whereas the remeasurement component is recognised as other comprehensive income (an item not to be reclassified to the profit or loss).

Without guiding principles of where gains and losses are reported, it is sometimes argued that OCI is a dumping ground for anything volatile or controversial. This enables key ratios such as price/earnings to be free from distortion from the less reliable gains and losses included in OCI. There are several arguments for and against reclassification of gains and losses. If reclassification ceased, there would be no need to define profit or loss and presentation decisions could be left to each individual IFRS Standard. It is argued that reclassification protects the integrity of profit or loss and provides users with relevant information. Errors within actuarial assumptions about life expectancy, wage inflation, service lives as well as differences between actual and expected returns are all included within the remeasurement component. It can be argued that there is no correlation between such items and the underlying performance of an entity. It could therefore be justified to classify the remeasurement component as an item which must not be reclassified to profit or loss. Arguments against reclassification include that it adds unnecessary complexity to financial reporting and could lead to earnings management. Reclassification could be easily misunderstood as essentially the same gain gets reported twice, once within OCI and once within profit or loss. Additionally it is likely that there will be a mismatch on reclassification as the gains or losses may be reported in a different period to when the underlying change in value of the asset or liability took place.

SOLUTION FIVE

(a) Report to the Board of Directors

To: The Board

From: Financial Controller

Date: 1 November, 2022

Subject: Analysis of Zamcell Limited's financial performance compared to industry average for the year to 31 December, 2022.

Introduction

This report presents an analysis of the financial performance of Zamcell Ltd compared to the industry averages.

Profitability

The return on capital employed of Zamcell is impressive being higher than the industry average. The company is employing its assets more efficiently and effectively in generating more revenue and hence income. However, gross profit margin and net profit margin of Zamcell are comparatively lower than the industry averages. This implies that the company is incurring more costs in generating its revenue.

Liquidity

Zamcell Ltd's current and quick ratios are much worse than the industry average, and indeed far below expected norms. Current liquidity problems appear due to high levels of trade payables and a high bank overdraft. The high level of inventories contributes to the poor acid test ratio. This may be indicative of further obsolete inventories. The trade receivables' collection figure is reasonable compared to the industry average.

Gearing

Zamcell Ltd's gearing is more than twice the level of the industry average. The company is making an overall return of 33.23% but only paying 8% interest on its loans notes. The gearing level may become a serious issue if Zamcell becomes unable to maintain the finance costs. The company already has an overdraft and the ability to make further interest payments could be in doubt.

Investment Ratios

Despite reasonable profitability figures, Zamcell's dividend yield is poor compared to the sector average. From the extracts of the changes in equity, it can be seen that total dividends are K1.8 million out of available profit for the year of only K1.92 million, hence the very low dividend cover, compared to the industry average.

Conclusion

The company compares favourably with the industry average figures for profitability, however, the company's liquidity and gearing position is quite poor and gives cause for concern.

Signed
Financial Controller

Appendix: Calculation of ratios for 2018:

Ratio	**Formulae**	**Computation**	**Answer**
1. Return on Capital Employed	Profit before interest and taxes *100 / Capital employed	4,220 *100 / 12,700	33.23%
2. Gross profit margin	Gross profit *100 / Sales	11,100 *100 / 48,500	22.89%
3. Net Profit before tax) margin	Net profit (before tax) *100 / Sales	3,720 *100 / 48,500	7.67%
4. Current ratio	Current assets :1 / Current liabilities	11,900 :1 / 10,000	1.19:1
5. Acid-test ratio	Current assets – Inventories :1 / Current liabilities	6,400 :1 / 10,000	0.64:1
6. Inventory turnover period	Inventory * 365 / Cost of sales	5,500 * 365 / 37,400	54 days
7. Trade receivables collection period	Trade receivables *365 / Sales	6,400 * 365 / 48,500	48 days
8. Debt-to-Equity ratio	Long-term debt *100 / Shareholders' equity	6,000 *100 / 6,700	89.55%
9. Dividend yield	Dividend per share *100 / Market price per share	0.15 *100 / 6	2.5%
10. Dividend cover	Net profit after tax / Dividends paid	1,920 / 1,800	1.07times

(b) IFRS 8 Operating Segments does not prescribe how centrally incurred expenses and central assets should be allocated to segments. The standard does, however, require that amounts be allocated on a reasonable basis. Different bases can be appropriate for each type of cost. For example

• The head office management costs could be allocated on the basis of turnover or net assets.

• The pension expense could be allocated on the number of employees or salary expense of each segment.

• The costs of managing properties could be allocated on the basis of the type, value and age of the properties used by each segment. The standard does not require allocation of costs to be on a consistent basis. An entity may allocate interest to a segment profit or loss but does not have to allocate the related interest-bearing asset to the segment assets or liabilities. IFRS 8 requires the information presented to be the same basis as it is reported internally, even if the segment information does not comply with IFRS Standards or the accounting policies used in the consolidated financial statements. Examples of such situations include segment information reported on a cash basis (as opposed to an accruals basis), and reporting on a local GAAP basis for segments that are comprised of foreign subsidiaries. Although the basis of measurement is flexible, IFRS 8 requires entities to provide an explanation of:

• the basis of accounting for transactions between reportable segments

• the nature of any differences between the segments' reported amounts and the consolidated totals. In addition, IFRS 8 requires reconciliations between the segments' reported amounts and the consolidated financial statements.

(c) Ordinary shares

Ordinary shares do not create a contractual obligation to deliver cash or another financial asset. As such, they are classified as equity on the statement of financial position. If equity increases then the gearing ratio will improve, which may make Zamcell's financing structure look less risky to its investors. Dividends paid on equity shares have no impact on profits because they are charged directly to retained earnings. Dividends are, in substance, the distribution of the entity's profits to its shareholders. Issuing equity shares will increase the number of ordinary shares in the basic earnings per share calculation. If the entity is not able to grow its profits then basic earnings per share may fall year-on-year. Investors might perceive this negatively because it is an indication that their future dividend returns will fall.

Convertible bonds

A bond that is redeemed in the form of cash or a fixed number of the entity's own equity shares has characteristics of debt and equity. As such, it should be 'split' into a liability component and an equity component. The liability component is calculated by taking the cash repayments and discounting them to present value using the rate on a similar non-convertible bond. The difference between the cash proceeds and the liability component on the issue date is classified as equity. The liability component is normally much larger than the equity component. As such, the issue of the bond is likely to make the gearing ratio deteriorate, increasing investors' perception of risk.

This is because liabilities necessitate mandatory repayments, whereas equity does not. If the convertible bond is issued then an annual Interest expense will be charged to profit or loss. This interest is calculated by applying the effective rate of interest to the liability component. Interest expenses are charged to the statement of profit or loss and so will reduce profits and basic earnings per share. However, whilst in issue, the convertible bonds have no impact on the number of shares used in the basic earnings per share calculation. Most convertible bonds are dilutive instruments. This is because the entity has a commitment to issue ordinary shares in the future. The maximum number of shares that Zamcell may issue to redeem the convertible bonds should be included in the diluted earnings per share calculation. Moreover, the earnings figure used in the calculation should be increased by the current year interest on the bond because this will not be charged after redemption. The disclosure of diluted earnings per share warns current and potential investors that earnings per share will fall when the convertible bond is redeemed. If investors are concerned about the potential drop, and the impact this may have on their investment returns, then they may decide to invest in other companies.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA 3.2: ADVANCED AUDIT AND ASSURANCE

THURSDAY 23 MARCH 2023

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

INSTRUCTIONS TO CANDIDATES

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

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

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

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

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

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

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

8. Present legible and tidy work.

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

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

SECTION A

This question is compulsory and must be attempted.

QUESTION ONE – COMPULSORY

Your firm is Auditor of Hippo Plc, a company in the pharmaceutical industry. You are an Audit Manager in your firm and you are planning the audit of the financial statements of Hippo Plc for the year ended 31 December 2021. Hippo Plc is part of a group of companies with which it trades and during the year under review has had business dealings with four (4) of the other group companies.

Hippo Plc. has been your firm's audit client for the last ten (10) years and the Engagement Partner has remained the same during this period. As part of the recently introduced quality controls, except for the Audit Manager, all the other audit team members are new most of them with no experience in auditing clients in this industry. Hippo Plc. runs an in-house clinic for its staff and their families and a few of the senior staff of its major customers. The company has extended free medical services in the clinic to the audit team members and their families for the next two (2) years.

Considering a number of factors, including an initial assessment of strong internal controls, you set materiality at a figure of K1.2 million.

Hippo Plc stocks large quantities of raw materials and finished goods at its warehouse. The industry is regulated by the Zambia Medicines Regulatory Authority which has strict regulations with regards to expiry of drugs and dealing in prohibited substances. The main raw material in the manufacture of a range of medicines is marijuana supplied by Green Farms Ltd which has been experiencing liquidity problems in the recent past resulting in it failing to meet the demand by Hippo Plc. During the year ended 31 December 2021, Hippo Plc took over Green Farms Ltd in order to ensure that there will be a steady flow of raw materials. Most of the management team members of Green Farms Ltd opted to be paid their terminal benefits requiring the employment of a new management by Hippo Plc.

As you were going through the previous year working papers, you established that Hippo Plc has an investment of 40% shares in a company in which your firm has a 30% stake. In your preliminary meeting with the management of Hippo Plc you were informed that the Finance Manager who was responsible for the preparation of the financial statements was transferred to a group company on promotion and that the Chief Accountant who was recently recruited is acting in his place until a replacement is found. The company has requested that your firm advertises for the job of Finance Manager on its behalf and recruit one (1) as soon as possible.

You established that there was a revaluation of properties owned by Hippo Plc during the year under review and the results of the revaluations are included in the financial statements. One (1) week before the commencement of the audit, the Managing Director of Hippo Plc called you to collect wedding invitation cards for you and the Engagement Partner slated for the 31 December 2021 the New Year's Eve.

When you started performing substantive audit procedures, you were concerned at the high incidence of errors in the figures contained in the financial statements. It became clear that the internal controls in Hippo Plc are not as effective as you had assessed them at the planning stage of the audit. It is your intention that audit risk should be reduced to acceptable levels in the audit of the financial statements of Hippo Plc but you are concerned that the risk of material misstatement is high. During the year under review, the company introduced online banking to its major customers. It was observed that the error rate and balance disputes by customers after the introduction of online banking increased resulting in frustrations by customers with some opting to buy their requirements from competitors of Hippo Plc at lower prices.

Required:

(a) Distinguish audit risk from risk of material misstatements in an audit of financial statements. (4 marks)

(b) Identify and explain five (5) audit risks in the audit of the financial statements of Hippo Plc and for each audit risk identified suggest a suitable audit response. (10 marks)

(c) Identify and explain four (4) business risks in Hippo Plc. (6 marks)

(d) Identify and explain five (5) ethical issues in the audit of the financial statements of Hippo Plc and suggest suitable safeguards. (10 marks)

(e) (i) Discuss the use of the materiality figures computed at the planning stage of the audit of the financial statements of Hippo Plc. (4 marks)

(ii) Explain the meaning and use of performance materiality and suggest a suitable performance materiality level for the audit of Hippo Plc. (3 marks)

(iii) Evaluate the need to amend materiality in the audit of the financial statements of Hippo Plc. (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

Giraffe Plc is a company in the chemical industry producing agricultural chemicals. Your firm of chartered accountants is auditor of the financial statements of Giraffe Plc.

You are the Audit Senior on the audit of the financial statements of Giraffe Plc for the year ended 31 December 2021.

In the year under review, in addition to manufacturing agricultural chemicals, the company started importing a range of liquid weed killers in bulk. The company repacks the weed killer into smaller quantities and sells it to wholesalers under its brand name. The company has grown over the last five (5) years and in the last year established an internal audit department. The department is headed by the Chief Internal Auditor who reports to the Finance Director.

The share prices of Giraffe Plc increased resulting in an increased demand for its shares. Mutti Ltd, one of the wholesale companies to which the company supplies chemicals bought 5% of the shares of Giraffe Plc Mutti Ltd relied on the financial statements audited by your firm in making the investment decision. In the current year, Mutti Ltd supplied a large quantity of weed killer to a commercial farmer in Mkushi. The weed killer was branded post application and was a selective weed killer applied in soya beans crops. When the farmer applied the weed killer, it destroyed five (5) hectares of the soya beans crop.

Upon investigating, it was discovered that the chemical used was non selective wrongly packed as selective by Giraffe Plc and that the chemical expired two (2) years ago. The Mkushi farmer sued Mutti Ltd for loss of its crop and in turn Mutti Ltd has commenced legal action against Giraffe Plc for supplying it with expired chemicals also wrongly packed as non-selective when not. Mutti Ltd commenced legal action against your firm claiming that the firm was negligent in the performance of the audit by not discovering that the weed killer had expired and should have been written off which negligence resulted in the overstatement of profit on which basis Mutti Ltd made its investment decision to buy shares in Giraffe Plc.

You are planning the audit of the financial statements of Giraffe Plc for the current year. You have a tight schedule in which to complete the audit and you intend to perform tests of control and rely on the work of internal audit and where possible seek direct assistance of the internal audit department.

The audit plan prepared at the commencement of the audit shows that you intend to do the following:

1. Attend the inventory count at the period end at the main warehouse. There are three (3) other warehouses at which significant inventory is kept.
2. A risk assessment with a view to identifying the risky areas that require special attention.
3. Review the effectiveness of the internal audit department.
4. Perform tests of controls with a view to place reliance on their effectiveness.

5. Perform substantive procedures of transactions and balances to obtain sufficient appropriate audit evidence.

The scope of the internal audit function of Giraffe Plc is wide and the department is involved in the risk assessment and setting up of related internal controls. The department comprises the Chief Internal Auditor, a Senior Auditor who has a qualification in accounting and relevant experience, two (2) Assistant Auditors who are studying for their accountancy qualification and two (2) others who only have technical knowledge of the industry and operations of Giraffe Plc. To a large extent, previous recommendations by the internal auditors have not been implemented by management of Giraffe Plc. The Internal Audit department of Giraffe Plc plan to send staff from the department to witness the inventory count that will be conducted at all the warehouses.

A review of selected working papers of the Internal Audit department shows that work on compliance with laws and regulations is done every quarter in view of the strict regulations the company is required to follow and the high risk of non-compliance with laws and regulations. The Internal Audit department performs detailed tests to test transactions and balances every quarter.

Required:

(a) Explain the use of the results of tests of control in an audit of financial statements. (2 marks)

(b) (i) Assess the possibility of the use of the work of internal audit in the audit of the financial statements of Giraffe Plc. (4 marks)

(ii) Discuss the areas in the audit plan in which you would rely on the work of internal audit if you concluded that you could rely on internal audit in (i) above. (4 marks)

(iii) Evaluate and discuss the intended use of direct assistance of internal audit in the audit of the financial statements of Giraffe Plc. (4 marks)

(c) Evaluate and advise on the legal action against the auditors by Mutti Ltd.

(6 marks)

[Total: 20 Marks]

QUESTION THREE

You are an Audit Manager in Cairo Accountants, a firm of Chartered Accountants. You are responsible for the audit of the financial statements for Chacha Ltd for the year ended 31 December 2021. Chacha Ltd is involved in the importation and sale of second hand vehicles.

Chacha Ltd's major customers are civil servants. The draft financial statements for the year ended 31 December 2021 show a significant drop in sales. The Finance Director has attributed this to the suspension of a memorandum of understanding for loan facilities between financial institutions and the government. However, you have noticed an increase in bank and cash balances which could not be properly explained by the Finance Director. The Money Laundering Reporting Officer (MLRO) for Cairo Accountants has been informed and is yet to advice on the way forward. The Engagement Partner has stated that you should remind all audit team members of the ethical guidance given the suspected money laundering.

The Engagement Partner has asked the newly promoted Audit Senior to determine the materiality level for audit of the financial statement for Chacha Ltd, as part of his training. The Audit Senior has requested you to explain the importance of tailoring materiality to the business and the anticipated users of financial statements.

On 1 July 2021, Chacha Ltd bought a building in Kalundu for K5 million. This building has been recognised in the statement of financial position as at 31 December 2021 as an investment property at a fair value of K5.4 million.

Required:

(a) Define money laundering and clearly explain, giving two (2) examples, the importance of ethical guidance on money laundering. (7 marks)

(b) Discuss, in as much detail as possible, why it is important for the auditor to tailor materiality to the business and the anticipated users of financial statements. (7 marks)

(c) Using the information on investment property:

(i) Explain three (3) financial statement assertions regarding investment properties. (3 marks)

(ii) Recommend suitable audit procedures to be performed in respect of each financial statement assertion explain in (c) (i) above. (3 marks)

[Total: 20 Marks]

QUESTION FOUR

You are an Audit Senior in Solwezi Chartered Accountants. Solwezi Chartered Accountants has been appointed group auditor for Nambi Group of Companies. You are responsible for the audit of the consolidated financial statements for Nambi Group of Companies for the year ended 30 June 2021.

Nambi Group of Companies consists of a parent company and three (3) subsidiaries. All companies are Zambian resident companies. The subsidiaries are audited by different auditors. One of the subsidiaries was acquired on 1 February 2021. Goodwill arising on consolidation has been computed as follows:

	K'000
Consideration (cash)	8,700
Non-controlling interest (fair value)	500
Fair value of identifiable assets at acquisition	(7,900)
Goodwill arising on consolidation	1,300

The group operates under several brand names selling package holidays mainly to Chief Executive Officers (CEOs) of blue chip companies and rich people. The group is very profitable and its systems are computerised. This makes it easy for the group to attract overseas clients. The group sells more than 20,000 holiday packages monthly.

Required:

(a) Explain what is meant by a component in group audits and state three (3) instructions which are normally given by the group management to components in order to achieve uniformity and comparability of financial information. (6 marks)

(b) Recommend six (6) audit procedures which should be performed in respect of goodwill arising on consolidation. (6 marks)

(c) Describe the implications for the auditors of big data and data analytics regarding audits for large companies such as Nambi Group of Companies. (8 marks)

[Total: 20 Marks]

QUESTION FIVE

You are an Audit Manager in Harare & Co., a firm of accountants. You are in charge of the audit of the financial statements for Mpika Ltd for the year ended 30 June 2021.

Mpika Ltd imports herbal medicines from Asia and distributes these medicines to countries within the Southern Africa Development Community (SADC) region. The herbal medicines are considered to be good supplements to normal medication prescribed by hospitals.

The audit of the financial statements for Mpika Ltd for the year ended 30 June 2021 has been completed and you have asked the Audit Senior to draft the audit report.

The following is an extract of the section on other information in the draft audit report suggested by the Audit Senior:

Other information

As auditors we are responsible for the other information. The other information comprises the information included in the annual report, but does not include the financial statements and our auditor's report thereon.

Our opinion on the financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to audit the other information and, in doing so, consider whether the other information is the same with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard"

The Audit Senior wants to know whether he should include the Key Audit Matters (KAMs) section. He, however, acknowledges that this may be challenging since it will require exercising professional judgement.

Required:

(a) Explain what is meant by professional judgement and give four (4) examples of when it is used in an auidt. (6 marks)

(b) Define Key Audit Matters (KAMs), and state the issues to consider in deciding on which matters to report as KAMs. (6 marks)

(c) Evaluate the suitability of the proposed "Other Information" section of the draft audit report suggested by the Audit Senior. (8 marks)

[Total: 20 Marks]

END OF PAPER

CA 3.2 ADVANCED AUDIT AND ASSURANCE SUGGESTED SOLUTIONS

SOLUTION ONE

(a) **Distinction between audit risk and risk of material misstatement:**

Audit risk is the risk that the auditor will issue an inappropriate audit opinion. This could be for example where the auditor issues a modified opinion when they should have issued an unmodified opinion and vice versa.

Audit risk comprises three elements namely the Inherent risk, control risk and detection risk. It arises after the auditors has performed the audit procedures in accordance with the auditing standards. This means that material misstatements are not detected through controls put in place by management and the audit performed by the auditor.

Risk of material misstatement is that financial statements may be misstated before the audit is performed. The financial statements may be misstated because of inherent risks in the figures contained in the financial statements and failure by the internal controls to detect material misstatements.

(b) **Audit risks in the audit of the financial statements of Hippo Plc.:**

Audit risk	Audit response
1. Regulation of Pharmaceutical Industry The pharmaceutical industry is highly regulated and non-compliance with laws and regulations could result in penalties against the company. There is a risk that Hippo Plc did not comply with laws and regulations resulting in potential liabilities. Provisions in the financial statements may be misstated.	Be alert during the audit and look out for evidence of non-compliance with laws and regulations. Share the risk among all the audit team members during the pre-audit meeting and emphasise the need for observing professional scepticism throughout the audit.
2. Related parties and related party transactions: There is a risk that Hippo Plc will not account for related party transactions in accordance with accounting standards. The financial statements could be misstated due to non-disclosure of related parties and related party transactions.	Review the draft financial statements and check disclosures of related party relationships and transactions. Establish from management of the related parties that you may not be aware of and obtain written representations from management that they have disclosed all the related parties to the auditors.

3. **Valuation of inventory:** The company stocks drugs which expire and whose net realizable value could be nil. There is an audit risk that the period end inventory may be overstated by valuing expired drugs at cost rather than net realizable value of zero.	Examine the inventory count instructions and establish how expired drugs will be identified during inventory count. Attend inventory count and confirm that expired drugs are isolated and ultimately not included in closing inventory.
4. **Acquisition of Green Farms Ltd:** Hippo Plc acquired Green Farms Ltd during the year under review. There is an audit risk that the accounting for the acquisition may not be in line with the provisions of the relevant IFRSs.	Review the computations for the acquisition of Green Farms Ltd and perform procedures on the computation of goodwill arising on acquisition.
5. **Receivables misstated:** The introduction of a new information system has resulted in an increase in errors and disputes of balances with the customers. There is a risk that accounts receivables may be misstated and that the allowances for receivables may be understated.	Establish if Hippo Plc prepares monthly customer reconciliations and determine the extent of disputed balances. Perform audit procedures on receivables including receivables confirmation which is third party evidence and more reliable. Further, confirm that the allowances for receivables has been computed in lien with the provisions of IFRS 9.
6. **Introduction of online sales:** The newly introduced online sales may result in an increased level of errors in invoicing and receipts from customers. This could result in a misstatement of the receivables.	The audit team should be alert and look out for errors when performing audit procedures on sales and receivables. Perform a receivables confirmation of a large sample of receivables.
7. **Inexperienced audit team members:** The fact that most of the audit team members assigned to the audit of the financial statements of Hippo Plc are new and lack experience could result in an increase in the detection risk.	There should be close supervision and review of the work performed by the audit team. Preferably a quality control review should be conducted by someone who was not involved in the audit of Hippo Plc.

(c) **Business risks in Hippo Plc.:**

1. **Non-compliance with laws and regulations:**
   There is a business risk if Hippo Plc. does not comply with laws and regulations.in the extreme case, non-compliance with some laws could result in the operating license of Hippo Plc. being revoked by the Zambia Medicines Regulatory Authority.

2. **Acquisition of Green Farm – New industry:**
   The entry into a new industry in which Hippo Plc has no managerial experience could impact the operations of Hippo Plc. negatively. The fact that new management will be put in place is worse. This acquisition could have a negative impact on the liquidity of Hippo Plc.

3. **Introduction of new information system;**
   The introduction of a new information system during the year has resulted in an increase in errors and customers are not pleased. This has resulted in some customers moving their custom to other suppliers. This could result in reduced sales and could impact the ability of the company as a going concern in view of poor liquidity.

4. **Increased competition:**
   The increase in competition in the recent past is likely to reduce the market share of Hippo Plc. The competitors are selling at relatively lower prices and more and more customers may switch suppliers which will impact negatively on the liquidity of Hippo Plc. Hippo Plc may find it difficult to compete on price because reductions in prices may make the company fail to meet its fixed operating costs.

5. **Poor internal controls could result in loss of assets:**
   Poor internal controls can impact Hippo Plc negatively. The company is likely to lose money due to poor internal controls which could impact the company in terms of liquidity. Further, internal controls are put in place with a view to protect the assets of the company. Hippo Plc risks losing assets as a result of poor and ineffective controls.
6. **Disputes arising from newly introduced online sales:**
   In the event that the newly introduced online sales result in disputes with the receivables, this may result in dissatisfaction on the part of the receivables who may elect to switch suppliers resulting in the company losing customers and revenue.

(d) **Ethical issues in the audit of the financial statements of Hippo Plc.:**

Ethical issue:	Safeguard:
1. **Same audit Engagement Partner for 10 years:** Having the same engagement partner for ten (10) years brings about a familiarity threat. This will impact on the independence and objectivity of the partner.	The firm should consider rotating the partner and bring in a new partner. Guidance states that senior engagement team members should not be on the same audit for more than seven (7) years.

2. Competence of the audit team members: The fact that the rest of the audit team members except the Audit Manager are new with no auditing experience is an ethical issue. There is a risk that material misstatement will not be detected by the audit team members with no experience. The fundamental principle of professional competence and due care requires that staff should be assigned to work for which they have the necessary skills and competences.	The Engagement Partner should consider reconstituting the audit team to include staff with auditing experience. If this is not achievable, there should be close supervision of the audit team members by the Audit Manager who has relevant experience. Quality control reviews will also be appropriate.
3. Offer of medical services to audit team members: The offer of free medical services to the audit team members and their families gives rise to a self-interest threat. This will impact on the independence of the auditors and their objectivity.	The audit team should decline the offer for free medical services.
4. Holding shares in a company Hippo Ltd has shares: The fact that Hippo Plc. has a 40% stake in a company in which the audit firm has a 30% stake creates a self-interest threat. The client company and the firm control this company and will create independence and objectivity problems for the firm.	In view of the fact that the threat is significant, the firm should consider disposing of the shares it holds in the company in which Hippo Plc. holds shares.
5. Recruitment of Finance Manager: The request by the management of Hippo Plc that the firm helps in recruiting a new Finance Manager could result in a self-interest threat. The auditors will also be taking on a role of management which should not be the case.	The firm should not be involved in the final selection of a Finance Manager. The firm may interview a number of people for the position and shortlist say three (3) and request the management of Hippo Plc to select who should take the job.

6. Wedding invitations: The invitation to a wedding reception to the audit team by the Managing Director of Hippo Plc may create a self-interest threat and may impact on the objectivity of the audit team.	The audit team should decline the invitation to the wedding reception,

(e) (i) **Use of materiality computed at the planning stage:**

Materiality is an important concept in auditing because auditors are concerned with matters that are material. An item is considered material if it can impact on the decisions of the users of financial statements.

The auditor determines materiality levels at the planning stage of an audit.

Materiality level computed is used by the auditor as follows:

- When computing the sample sizes use is made of the materiality level. Generally when materiality level is high the sample size is lower and when the materiality level is low the sample size is larger.
- The materiality computed at the planning stage is also used when to assess the uncorrected misstatements and arriving at the audit opinion. When uncorrected misstatement exceeds the materiality level the auditor may conclude that the financial statements do not show a true and fair view.

(ii) **The reason for computing performance materiality:**

Performance materiality is set at a figure that is lower than materiality for the financial statements as a whole. For example in the case of Hippo Plc. performance materiality may be set at K0.9 million which is lower than the materiality for the financial statements as a whole of K1.2 million.

Performance materiality is the one that the auditor will use in the audit. The reason for performance materiality is to reduce the risk that uncorrected misstatements will exceed the materiality for the financial statements as a whole. This is achieved because by reducing the materiality level, the more work will be done because of increased sample sizes.

(iii) **Need to amend materiality in the audit of the financial statements of Hippo Plc.:**

Materiality levels are set at the planning stage of the audit and is based on information known at this stage.

As audit progresses new information may arise which may necessitate a revision of the materiality levels set at the planning stage. In the case of Hippo Plc. the following matters may necessitate a revision of the materiality levels:

- The poor internal controls that have been found during the audit. When materiality was computed at the planning stage, it was on the basis that internal controls were considered to be good.

- Another justification for changing the materiality level is the increased error rate found during the substantive procedures.

SOLUTION TWO

(a) **Use of results of tests of control in an audit**:

In performing an audit, the auditors may use a combined approach or a substantive approach. A combined approach is one where the auditors perform tests of control and substantive procedures. This is done when the results of the tests of control show that the controls are operating as expected and can be relied upon.

If the results of the tests of controls show that internal controls are ineffective, the auditors will not rely on the controls and only use substantive tests.

When the combined approach is used, the auditor will limit the extent of substantive tests because of relying on the internal controls whereas if they do not rely on the internal controls they will solely perform substantive procedures.

(b) (i) **Assessment of use of internal audit in audit of Giraffe Plc.:**

One of the factors that is considered when deciding whether or not to rely on the work of an Internal Audit department is the extent of their objectivity and the quality of the work performed.

In the case of the Internal Audit department of Giraffe Plc the following are matters of concern:

- The fact that the Head of Internal Audit reports to the Finance Director raises concerns on the objectivity of the department. They are likely to face influence in the performance of their work especially that part of their work involves auditing work of the finance department. It is preferable that the Head of Internal Audit reports to the Audit Committee if one exists.
- The competence of the Internal Auditors is another factor that needs consideration. It would appear that only the Chief Internal Auditor and the Senior Auditor have the necessary qualifications. Although it is not a requirement that staff in the Internal Audit Department should all be accountants their competence should be assessed. If there is doubt with regards the competence of the internal auditors this may suggest that the statutory auditor cannot place reliance in their work.
- The fact that the recommendations of internal audit have not been followed in the past is a matter of concern. It suggests that the risk of errors and omissions which could result in material misstatement of the financial statements is high.

Based on the above assessment, use of the work of internal auditors of Giraffe Plc is not appropriate. The external auditors should perform substantive audit procedures to obtain sufficient appropriate audit evidence and not rely in the work of internal audit.

(ii) **Use of the work of internal audit from the audit plan**:

The work of internal audit in areas that do not require significant judgment could be relied upon by the statutory auditor. In the audit of the financial statements of Giraffe Plc the work of internal audit in the following areas could be relied upon:

- Testing of the effectiveness of internal controls in the company.
- Observations of inventory count in locations that the external auditors will not be in attendance.
- Detailed tests on the financial statements that have been performed by the internal audit function in areas where there is limited judgment required.
- Work done by internal audit department to test extent of compliance with laws and regulation by Giraffe Plc.

(iii) **Intended use of direct assistance of internal audit**:

The external auditors can seek direct assistance of internal audit in certain circumstances. In this case the internal auditors involved should report to the external auditors with regards to any work that they perform.

Generally, internal auditors should not be given work which involves evaluating work that they previously performed or assessing the efficiency of the internal audit department or work that involves significant judgment or with high audit risk.

With regards to the planned work according the work plan the following is the position:

- Internal audit could be used to attend inventory count at warehouses that the external auditors will not attend. This will be done under the supervision of the external auditors and the internal auditors will be required to report the result of the inventory count to the external auditors.
- Risk assessment is key to deciding on the audit strategy and the work that will be done. The statutory auditors should perform risk assessment and they may not use the internal auditors to do this because of lack of independence and objectivity. In the case of Giraffe Plc. the internal auditors are responsible for risk assessment and so it will not be appropriate to involve them in assessing risk at the planning stage of the audit.
- The assessment of whether to rely on internal audit should be done by the external auditors. Requiring that internal audit staff do this will result in a self-review as they will be assessing their own work.
- Since the internal auditors are involved is putting internal controls in place it will not be appropriate to use them to carry out tests of controls over the controls that they set up.
- The internal auditors may be used to perform substantive procedures in matters that require limited judgment. Where there is significant judgment required such as in the audit of accounting estimates, the internal auditors should not be asked to perform the audit procedures.

(c) **Advise on litigation against the auditors**:

Statutory auditors enter into a legal contract with the audit client. With regards to legal action against the auditors, decided cases by the courts give guidance.

Generally, for any party to successfully sue the auditors, the following should be considered:

- There should be a duty of care by the auditors to the party suing.
- There should be a breach of the duty of care.
- The party suing should have suffered loss as a result of the breach of the duty of care.

In the case of third parties, the courts held that the auditors do not owe a duty of care to a third party who suffers loss as a result relying on the financial statements audited by the external auditor (Caparo case).

In the event that the third party decides to sue the auditors they must prove to the court that:

- The auditors owe them a duty of care.
- That there was a breach of the duty of care and
- That they suffered loss as a result of the breach of the duty of care.

Conclusion:
It will be difficult for Mutti Ltd to succeed in suing the auditors because of having suffered loss as a result of relying on the audited financial statements to buy shares in Giraffe Plc. Mutti Ltd will need to prove that the auditors owed them a duty of care or the courts will be reluctant to award damages for any loss suffered.

SOLUTION THREE

(a) **Money laundering**

Money laundering is the process by which criminals attempt to conceal the true origin and ownership of the proceeds of their criminal activity, allowing them to maintain control over the proceeds and, ultimately, providing a legitimate cover for their sources of income.

Ethical guidance on money laundering is necessary as applying the law involves making difficult judgements, particularly if there are:

- Confidentiality issues – the audit team members will have access to very sensitive information. Subject to legal rules of disclosures in court cases, it is clearly essential to maintain the strictest confidentiality.
- Integrity issues – This is likely to be a very sensitive matter, especially if it is already in the public domain. It will be important for the auditors to be seen to be professional. This may involve working in an environment dealing with individuals who are dishonest and lack integrity. If there is any risk that their own integrity will be compromised Cairo Accountants should withdraw from this audit.

(b) **Importance for the auditor of tailoring materiality to the business and the anticipated user of financial statements**

ISA 320 *Materiality in Planning and Performing an Audit* gives detailed guidance in this area.

Materiality is a matter of judgement for the auditor. Therefore, prescriptive rules will not always be helpful when assessing materiality. A significant risk of prescriptive rules is that a significant matter, which falls outside the boundaries of the rules, could be overlooked, leading to a material misstatement in the financial statements.

The percentage guidelines of assets and profits that are commonly used for materiality must be handled with care. The auditor must bear in mind the focus of the company being audited.

In some companies, post tax profit is the key figure in the financial statements, as the level of dividend is the most important factor in the accounts.

In owner managed businesses, if the owners are paid a salary and are indifferent to dividends, the key profit figure stands higher in the statement of profit or loss, say at gross profit level. Alternatively in this situation, the auditor should consider a figure that does not appear in the statement of profit or loss: profit before directors' salaries and benefits.

Some companies are driven by assets rather than the need for profits. In such examples, higher materiality might need to be applied to assets. In some companies, say charities, costs are the driving factor, and materiality might be considered in relation to these.

While rules or guidelines are helpful to auditors when assessing materiality, they must always keep in mind the nature of the business they are dealing with. Materiality must be tailored to the business and the anticipated users of financial statements, or it is not truly materiality.

(c) (i) & (ii) **Investment property**

(i)Financial statement assertions:	(ii) Audit procedures:
(1) Existence – this means the investment property exists according to the criteria of IAS 40 *Investment Property*	Confirm that the property meets the IAS 40 definition of investment property and physically inspect the property.
(2) Valuation – this means the investment property is valued at an appropriate amount in accordance with relevant standards.	Confirm that fair value has been determined in accordance with IFRS 13 *Fair Value Measurement.*
(3) Disclosure – this means the disclosure notes are relevant and understandable.	Review the disclosures made in the financial statements in relation to investment properties to ensure that they have been made appropriately, in accordance with IAS 40.
(4) Rights and obligations – This means that the investment property belongs to Chacha Ltd.	Examine the title deed for the investment property and confirm it is in the name of Chacha Ltd.

SOLUTION FOUR

(a) **Meaning of component in group audit and instructions**

ISA 600 *Special Considerations – Audits of Group Financial Statements (including the work of Component Auditors)* defines component as an entity or business activity for which the group or component management prepares financial information that should be included in the group financial statements.

To achieve uniformity and comparability of financial information the group management will normally issue instructions to components. These instructions ordinarily cover:

- The accounting policies applied
- Statutory and other disclosure requirements including:
  - The identification and reporting of segments
  - Related party relationships and reporting of segments
  - Intra-group transactions and unrealised profits
  - Intra-group account balances
- A reporting timetable.

(b) **Audit procedures for goodwill:**

- Obtain the purchase agreement and verify the consideration figure
- Agree the consideration to the bank statement and cashbook
- Confirm valuation of assets acquired is reasonable by checking the valuation reports and consulting experts if necessary
- Re-perform the calculations to verify arithmetical accuracy
- Review amortisation:
  - Test calculation
  - Assess whether amortisation rates are reasonable
- Ensure valuation of non-controlling interest (NCI) is in line with the guidelines given in IFRS 3 *Business Combinations.*

(c) **Implications for the auditors of big data and data analytics**

Big data is a broad term for the larger, more complex datasets that can be held and interpreted by modern computers. The term refers to a qualitative shift in the amount of data that is available in comparison with the past.

Data analytics is the examination of data to try to identify patterns, trends or correlations. As the quantity of data has increased, it has become more and more necessary to evolve ways of processing and making sense of it.

It has been said that there are 3 Vs of big data: there are larger volumes of data, at faster velocity, with more variety. Some add a 4th V – veracity – which refers to widespread uncertainties over the reliability of data.

Gartner defines big data is data that contains greater variety arriving in increasing volumes and with ever-higher velocity (Known as the 3 Vs).

Recent advances in IT make it increasingly possible for auditors to examine a complete data set – 100% of the transactions – and to represent trends graphically, almost instantly. Some have claimed that these techniques may bring about a long-term revolution in audit approaches, since they enable auditors to focus on 100% of the transactions rather than just a sample (as auditing standards assume).

Implications of big data and data analytics to an audit include:

- Ability to audit populations – In view of increased speed of computers the auditors will be able to test 100% of transactions and balances and in this way significantly reduce detection risk.
- Improved risk assessment – The risk of issuing an inappropriate audit opinion is reduced in view of increased levels of testing that can be done. Generally, the higher the level of testing the lower is the audit risk.
- Improved quality – Work which would have been performed manually by the auditors can now be performed by computers through the use of computer assisted audit techniques thereby reducing the extent of errors in the audit work.
- Reduced engagement risks – The auditors may wish not to rely on the effectiveness of internal controls in designing the nature and extent of procedures to be performed.

SOLUTION FIVE

(a) **Meaning of professional judgement**

ISA 200 *Overall Objectives of the Independent Auditor and the Conduct of an Audit in accordance with International Standards on Auditing* defines professional judgement as the application of relevant training, knowledge and experience in making informed decisions about the courses of action that are appropriate in the circumstances of the audit engagement.

Professional judgement is required in the following areas:

- Materiality and audit risk
- Nature, timing and extent of audit procedures
- Evaluation of whether sufficient appropriate audit evidence has been obtained
- Evaluating management's judgements in applying the applicable financial reporting framework
- Drawing conclusions based on the audit evidence obtained.

(b) **Key Audit Matters (KAMs)**

ISA 701 *Communicating Key Audit Matters in the Independent Auditor's Report* defines Key Audit Matters (KAMs) as those matters that, in the auditor's professional judgement, were of most significance in the audit of the financial statements of the current period. Key Audit Matters are selected from matters communicated with those charged with governance.

In working out which matters to report as KAMs, the auditor takes into account the following:

- Areas of higher risk of material misstatement, or 'significant risks' identified in line with ISA 315 (Revised) (e.g. at the planning stage)
- Significant judgements in relation to areas where management made judgements
- The effect of significant events or transactions

(c) **Evaluation of the suitability of the proposed "Other Information" section of the draft audit report suggested by the Audit Senior**

- Heading – this is suitable as it complies with the guidance given in ISA 700 *Forming an Opinion and Reporting on Financial Statements.*
- As auditors we are responsible – this is not suitable since it is management who is responsible.
- Does not include the financial statements – this is suitable as it complies with the guidance given in ISA 700 *Forming an Opinion and Reporting on Financial Statements.*
- Audit the other information – this unsuitable as the standard uses the word "read" the other information and not audit the other information.
- Other information is the same with the financial statements – this does not comply with the guidance given in ISA 700 *Forming an Opinion and Reporting on Financial*

Statements. The standard uses other information is materially inconsistent with the financial statements.

- Required to report – this is suitable as it complies with the guidance given in ISA 700 *Forming an Opinion and Reporting on Financial Statements.*

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATION

CA ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA 3.4: ADVANCED TAXATION

THURSDAY 23 MARCH 2023

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 from Section B.
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> – (COMPULSORY)

You should assume that today's date is 30 November 2021 and that the earnings threshold for the purposes of NAPSA is K293,232.

Background

John Kabuswe, a Zambian resident, retired from employment in 2021. He will commence business as a wholesaler on 1 January 2022, using his retirement benefits and borrowed funds. He wishes to involve his son Jordan Kabuswe in running the business. He is unsure whether his son should be engaged in the business as an employee, a partner or whether he should form a limited company and run it together with his son as directors.

On 1 January 2022 the business will purchase two (2) motor vehicles. These will include a Toyota Camry car (2200 cc) at a cost of K200,000 and a Ford Ranger (double cab) van, having a cylinder capacity of 2,400cc, also at a cost of K200,000. He will also acquire three (3) Mitsubishi Light trucks at a cost of K240,000 each and office equipment at a cost of K80,000. The Toyota Camry car will be used by John Kabuswe whilst the Ford Ranger van will be used by Jordan Kabuswe. Each individual will use each vehicle both for business and private purposes. It is estimated that the private use of each individual of each car will be 40%. Each of the above assets will be brought into use immediately after purchase.

The annual turnover of the business for the tax year 2022, is expected to be K6,900,000.

The following additional information is available:

Sole Trader

Under this option John Kabuswe will run the business as a sole trader and engage Jordan as an employee. Jordan will be entitled to annual basic salary amounting to K300,000. He will also be entitled to an accommodation allowance amounting to 20% of his basic salary. John Kabuswe will deduct employees' NAPSA contributions of 5% of Jordan's gross employment earnings.

He will also be required to contribute, on behalf of Jordan, employers' NAPSA contributions of 5% of the gross employment earnings.

John will additionally pay 0.5% of Jordan's gross employment earnings as a skills development levy. John will draw an all-inclusive salary amounting to K400,000 per annum.

The net profit as per accounts for the year ended 31 December 2022 is estimated to be K1,900,000. This profit figure is before taking into account any expenses relating to John and Jordan, NAPSA contributions and the skills development levy. All the expenses deducted in arriving at the profit of K1,900,000 are allowable for tax purposes.

Partnership

If Jordan is engaged as a partner, then business will be run as a partnership. John and Jordan will draw annual salaries amounting to K400,000 and K300,000 respectively. Jordan will draw an accommodation allowance amounting to 20% of his salary.

Under this option NAPSA contributions will not be payable by either John or Jordan. The skills development levy will also not be payable.

The tax net profit as per accounts is expected to be K1,900,000 for the year ended 31 December 2022. This net profit figure is before taking into account any expenses relating to John and Jordan. All the expenses deducted in arriving at the profit of K1,900,000 are allowable for tax purposes.

Any balance of the profit and losses will be shared in the ratio 3:1 between John and Jordan.

Limited company

If John and Jordan run the business as a limited company, they will incorporate a company known as JOJO Limited. John will hold 70% of the issued equity share capital of JOJO Limited while Jordan will hold 30% of the issued equity share capital of JOJO Limited. They will personally run the company and manage it as full-time working directors. They will draw annual directors' salaries amounting to K400,000 and K300,000 for John and Jordan respectively. Jordan will draw an additional 20% of his basic salary as accommodation allowance. The company will deduct employees' NAPSA contributions of 5% of each individual's gross employment earnings.

The company will contribute employer's NAPSA contributions of 5% of each individual's gross employment earnings. The company will additionally pay a skills development levy of 0.5% of each individual's gross employment earnings.

The net profit as per accounts is expected to be K1,900,000 for the year ended 31 December 2022. This profit figure is before taking into any expenses relating to John and Jordan but after all relevant tax adjustments have been made. All the expenses deducted in arriving at the profit of K1,900,000 are allowable for tax purposes.

Required:

(a) Calculate the amount of income tax and NAPSA contributions payable by John and Jordan for the tax year 2022 if John runs the business as a sole trader. (10 marks)

(b) Calculate the amount of income tax payable by John and Jordan for the tax year 2022, if the business is run as a partnership. ` (8½ marks)

(c) Assuming the business is run as a limited company:

(i) Calculate the amount of income tax, and NAPSA contributions payable by John and Jordan for the tax year 2022. (5 marks)

(ii) Calculate the amount of income tax payable by JOJO limited for the tax year 2022. (7 marks)

(d) Advise John and Jordan whether it will be beneficial to run the business as a sole trader, partnership or as a limited company. Your answer should be supported by a computation of the net income after tax, NAPSA contributions and other relevant expenses for each option. (9½ marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt any THREE (3) questions in this section.

QUESTION TWO

Mukuba Mining Plc, a Zambian resident company engaged in open cast mining operations of copper for the year ended 31 December 2022. The company maintains its accounts in US dollars. The Director of Finance has identified an error in one of the company's previous returns and does not seem to know how to regularise this.

The following summarised statement of profit or loss has been extracted from the financial statements of the company for the year ended 31 December 2022:

	K' 000
Revenue	670,000
Cost of sales	(310,000)
Gross profit	360,000
Operating expenses	(120,000)
Finance costs	(20,000)
Profit before tax	220,000
Income tax expense	(60,000)
Profit for the year	160,000

The following additional information is available:

(1) For the year ended 31 December 2021, the company incurred a mining tax adjusted loss of US$500,000 from the sales of copper.

(2) Revenue includes proceeds from the sale of 2,000 metric tonnes of copper ore on 31 December 2022, at a price of U$3,500 per metric tonne, to Kolwezi Ltd, a 75% owned subsidiary of Mukuba Mining Plc. Kolwezi Ltd is resident in a foreign country and manufactures copper cables. The London Metal Exchange cash price at the time of sale was US$7,195 per metric tonne. The remaining sales are stated at their norm value for purposes of mineral royalty. The mineral royalty has been properly accounted for.

(3) Included in cost of sales is depreciation and amortisation amounting to K18,000,000 and K7,000,000 respectively.

(4) Operating expenses comprises the following:

	K' 000
Construction of a hospital in the mining township	20,000
Sinking boreholes in a non-mining township	13,000
Hedging losses	5,000
Miscellaneous allowable operating expenses	82,000
	120,000

(5) The income tax expense shown in the statement of profit or loss represents the provisional income tax paid for the tax year 2022.

(6) Capital allowances on non-current assets used directly in mining for the tax year 2022 were K12,000,000.

(7) The indexation formula for capital allowances and mining losses, where applicable is given below:

$$1+\frac{(R_2-R_1)}{R_1}$$

The following Zambia Kwacha per US Dollar (K/US$) average BOZ mid-exchange rates should be used where applicable:

Accounting period	**Average BOZ Mid-Exchange rate**
	K/US$
Y/e 31 December 2020	20.50
Y/e 31 December 2021	18.36
Y/e 31 December 2022	14.75

(8) Throughout the year ended 31 December 2022, the monthly average copper price was over US$7,000 per metric tonne. The mineral royalty paid by the company in the tax year 2022, was determined properly and has been included within cost of sales in the statement of profit or loss shown above.

Required:

(a) Advise the Director of Finance on how they should regularise the error identified in the return, clearly explaining the specific actions to take. (4 marks)

(b) Compute the taxable mining profit and amount of company income tax payable for the tax year 2022. (16 marks)

[Total: 20 Marks]

QUESTION THREE

FGT Plc is a company engaged in manufacturing. The company was incorporated and is resident in country known as Republic of Delta. The currency of Republic of Delta is the Deltan Dollar (D$). The Directors of FGT Plc have decided to invest in Zambia by incorporating a new manufacturing company known as FDG (Z) Limited in Zambia. Construction of the factory and administrative buildings was completed a year ago. However, the operations of FDG (Z) Limited commenced on 1 October 2022. The directors of FGT Plc wish to know whether their investment in Zambia would be classified as a permanent establishment and the tax incentives, if any, available to companies like FDG (Z) Limited.

The Directors of FGT Plc have seconded Scott MacArthur as the Managing Director of FDG (Z) Limited with effect from 1 October 2022. Scott was born in 1978 and he is resident in the Republic of Delta. He arrived in Zambia on 28 September 2022 to take up employment at FDG (Z) Limited for a contract period of three (3) years which is renewable.

He is entitled to a basic salary amounting to K71,200 per month and transport allowance of 12% of the basic salary. He is provided with free residential accommodation in a company owned house. If rented, the company could have charged gross rentals amounting to K17,000 per month. The company pays for all house maintenance expenses amounting to K3,100 per month. Pay as you earn deducted from his salary amounted to K46,280 during the period to 31 December 2022.

Scott holds various investments in the Republic of Delta. During the month of December 2022, he received the following investment income from his investments in that country:

	D$
Dividends from listed companies in Delta	14,980
Rental income from properties let out in Delta	25,160
Bank interest from banks resident in Delta	6,800

The above amounts of investment income are net of withholding tax paid to the tax authority in the Republic of Delta. Withholding tax in the Republic of Delta is charged at a rate of 30% on dividends and at a rate of 15% on both rental income and bank interest. The amounts of investment income were credited to his account with Zambian banks.

There is no double taxation convention between Zambian and the Republic of Delta. Any double taxation relief is given by means of credit of foreign tax paid against the Zambian income tax. The average exchange rate approved by the Commissioner General for the tax year 2022 is K17.20 per D$1.

Required:

(a) Explain the meaning of a Permanent Establishment and advise the directors of FGT Plc as to whether FDG Zambia will constitute a Permanent Establishment. (3 marks)

(b) Explain any five (5) tax incentives available to manufacturing companies like FDG (Z) Limited. (5 marks)

(c) Advise Scott whether he will be regarded as a resident in Zambia for the tax year 2022. You should give reasons for your answer. (3 marks)

(d) Compute the amount of income tax payable by Scott MacArthur for the tax year 2022. (9 marks)

[Total: 20 Marks]

QUESTION FOUR

You are employed in a firm of Chartered Accountants as a senior tax consultant. Your supervisor has presented you with the following information relating to a client, Albert Moono:

Mr. Abel Moono, Albert's father, died on 31 July 2022 after an illness. He left the following assets at the date of death:

	Market values
	K
Bank savings accounts	260,000
Residential property	800,000
Commercial property	1,100,000
Investment in shares of Moon Limited	Note 1
Investment in shares of TLM Plc	Note 1
Various chattels	300,000

The following additional information is relevant:

(1) Abel Moono held 10,000 equity shares of K1 each in Moon Limited, a private limited company. The value of each share in Moon Ltd was determined to be K21 each as at 31 July 2022, using share valuation methods which are approved by the Commissioner General.

(2) Abel held 40,000 equity shares of K1 each in TLM Plc, a Zambian resident company listed on the Lusaka Securities Exchange (LuSE). The shares were trading at K2.60 each on 31 July 2022.

(3) The will left by Mr. Abel Moono split his assets between his two children, Albert Moono and Martha Moono in the proportion of 2:1 respectively.

Mr. Abel Moono was employed as a Marketing Manager up to his date of death. He was paid a monthly salary of K32,000. In addition to the salary, he was also entitled to housing allowance at a rate of 15% of basic salary. Before his death, he paid for the following expenses:

	K
NAPSA contributions	8,120
Pay as you earn	84,298
Professional subscription	5,200
National Health Insurance Management Authority (NHIMA) contributions	2,240

Albert Moono is 35 years old and is concerned with how his children can be financially protected from any adverse financial consequences that may arise from illness or death. He heard, at a workshop he recently attended, that he can take up some personal financial protection products.

Albert Moono has approached your firm for advice in relation to the tax issues arising from the above matters.

Required:

(a) Advise Albert of the tax treatment of the income earned by his father before date of death. Your advice should include a computation of income tax payable by Mr. Abel Moono for the tax year 2022. (6 marks)

(b) Compute the amount of tax payable on the estate left behind by Albert's father and the amount of the estate, after tax, available for inheritance by Albert Moono and her sister, Martha Moono. (6 marks)

(c) Advise Albert on the nature and the tax implications of each of the following personal financial protection products:

(i) Whole of life assurance (3 marks)
(ii) Permanent health care insurance (3 marks)
(iii) Critical illness insurance (2 marks)

[Total: 20 Marks]

QUESTION FIVE

You are employed as a Tax Manager in a tax practice and you are dealing with the tax affairs of MGM General Insurance Ltd, a Zambian resident company providing general insurance services. The directors have informed you that the company has just received notification that the Zambia Revenue Authority will be conducting a tax audit of the affairs of the company soon and have asked your firm to help prepare the company for the audit.

The summarised results of the company from the general insurance business for the year ended 31 December 2022 was as shown below:

	K'000
Unexpired premiums reserves at 1 January 2022	270,000
Unexpired premiums reserves at 31 December 2022	330,000
Gross premiums from customers	2,400,000
Premiums refunded on re-insurance	360,000
Outstanding claims from customers at 1 January 2022	90,000
Outstanding claims from customers at 31 December 2022	160,000
Interest income (Note 1)	300,000
Operating expenses (Note2)	1,400,775

Note 1: Interest income

This comprises Government of Zambia bond interest of K280,000,000 (gross) and fixed deposit interest of K20,000,000(gross).

Note 2: Other operating expenses

These comprises depreciation of non-current assets of K80,000,000, staff salaries and wages of K94,600,000, fines for non-compliance with regulations under the Pension and Insurance Act amounting to K35,000,000, foreign exchange losses arising on the settlement of a loan obtained from a foreign financial institutions of K500,000, foreign exchange losses arising on translating the fair value of equity investments held by the company in foreign entities at the year-end amounting to K875,000 and administration expenses of K680,800,000. The balance comprises miscellaneous allowable operating expenses.

Note 3: Provisional income tax

The provisional income tax paid by the company during the year was K405,600,000.

Note 4: Implements plant and machinery

The only non-current assets qualifying for capital allowances held by the company at 1 January 2022 included administrative buildings which were constructed by the company five (5) years ago at a cost of K35,000,000, office furniture which was acquired three (3) years ago at a cost of K700,000 and office equipment which was acquired two (2) years ago at a cost of K1,600,000.

Required:

(a) Explain four (4) audit objectives that a quality tax audit of the affairs of MGM Insurance Ltd should achieve. (4 marks)

(b) Explain any three (3) audit procedures the tax auditor should carry out to uncover any unreported income when performing a tax audit on the affairs of MGM Insurance Ltd. (3 marks)

(c) Compute the amount of the taxable income for MGM Insurance Ltd and the company's income tax payable for the tax year 2022. (13 marks)

[Total: 20 Marks]

END OF PAPER

CA 3.4 ADVANCED TAXATION SUGGESTED SOLUTIONS

SOLUTION ONE

(a) JOHN

INCOME TAX PAYABLE FOR THE TAX YEAR 2022

	K	K
Business profit		1,900,000
Add: Personal to holder motor car benefit		
(Ford Ranger double cab van)		30,000
		1,930,000
Less:		
Jordan's salary	300,000	
Jordan's accommodation allowance		
(K300,000 x 20%)	60,000	
Employer's NAPSA contribution		
(K293,232 x 5%)	14,662	
Skills development levy		
(K300,000 + K60,000) x 0.5%	1,800	
Capital allowances:		
- Toyota Camry car		
(K200,000 x 20% x 60%)	24,000	
- Ford Ranger		
(K200,000 x 20%)	40,000	
- Mitsubishi light trucks		
(K240,000 x 3 x 25%)	180,000	
- Office equipment		
(K80,000 x 25%)	20,000	
		(640,462)
Taxable business profit		1,289,538
Income Tax		
First K82,800		8,460
Excess (K1,289,538 – K82,800) @37.5%		452,527
Income tax payable		460,987

JORDAN

PERSONAL INCOME TAX COMPUTATION FOR THE TAX YEAR 2022

	K
Basic salary	300,000
Accommodation allowance	
(K300,000 x 20%)	60,000
Taxable income	360,000
Income Tax	
First K82,800	8,460
Excess (K360,000 – K82,800) @37.5%	103,950
Income tax payable	112,410
Employee's NAPSA contributions: K293,232 x 5%	14,662

(b) COMPUATION OF FINAL TAXABLE PROFITS AND INCOME TAX PAYABLE IF BUSINESS IS RUN AS PARTNERSHIP

	K	K
Business profit		1,900,000
Less:		
Capital allowances:		
Toyota Camry car		
(K200,000 x 20% x 60%)	24,000	
Ford Ranger		
(K200,000 x20%) x 60%	24,000	
Mitsubishi light truck		
(K240,000 x 3 x 25%)	180,000	
Office equipment		
(K80,000 x 25%)	20,000	
		(248,000)
Taxable business profit		1,652,000

	John	Jordan	Total
	K	K	K
Partners' salaries	400,000	300,000	700,000
Accommodation allowance			
(K300,000 x 20%)	-	60,000	60,000
Balance of profits 3:1	669,000	223,000	892,000
Total	1,069,000	583,000	1,652,000
Income Tax			
First K82,800	8,460	8,460	
Excess			
(K1,069,000 – K82,800) @37.5%	369,825	-	
(K583,000 – K82,800) @37.5%		187,575	
Income tax payable	378,285	196,035	

(c) (i) PERSONAL INCOME TAX COMPUTATIONS

	John	Jordan
	K	K
Basic salary	400,000	300,000
Accommodation allowance		
(K300,000 x 20%)	-	60,000
Taxable income	400,000	360,000
Income Tax		
First K82,800	8,460	8,460
Excess		
(K400,000 – K82,800) @37.5%	118,950	
(K360,000 – K82,800) @37.5%		103,950
Income tax payable	127,410	112,410
NAPSA Contributions: K293,232 x 5%	14,662	14,662

(i) JOJO Limited

	K	K
Business profit		1,900,000
Add:		
Personal-to-holder car benefit:		
Ford Ranger		30,000
Toyota Camry		30,000
		1,960,000
Less:		
Directors' emoluments		
(K400,000 + K360,000)	760,000	
Employer's NAPSA		
(K293,232 x 2 x 5%)	29,324	
Skills development levy		
(K400,000 + K360,000) x 0.5%	3,800	
Capital allowances on vehicles		
(K200,000 x 2 x 20%)	80,000	
Mitsubishi light trucks		
(K240,000 x 25%) x 3	180,000	
Office equipment		
(K80,000 x 25%)	20,000	
		(1,073,124)
Taxable business profit		886,876
Income tax: K886,876 x 30%		266,063

(c) Net income

	Sole trader	partnership	Limited company
	K	K	K
Business profits	1,900,000	1,900,000	1,900,000
Less:			
Income tax:			
John	(460,987)	(378,285)	(127,410)
Jordan	(112,410)	(196,035)	(112,410)
JOJO Limited	-	-	(266,063)
Employees' NAPSA	(14,662)	-	(29,324)
Employer's NAPSA	(14,662)	-	(29,324)
Skills development levy	(1,800)		(3,800)
Net income	1,295,479	1,325,680	1,331,669

It will be more beneficial to run the business as a limited company. This is so because under limited company, John and Jordan will have the highest net income after tax and statutory deductions.

SOLUTION TWO

(a) **Taxpayer disclosure options**

Where a taxpayer has identified an error in their returns, there are a number of options available to them to regularise this.

They can self-correct without incurring a penalty within a specified timeframe. For income tax, the self-correction must take place within six (6) years following the date when the return was due for submission.

The taxpayer must apply in writing to the Commissioner-General setting out the adjustment to be made, attaching a corrected computation of the tax liability and enclosing payment of tax, plus statutory interest.

This option is not available if the taxpayer has already been notified of a tax audit or investigation. Alternatively, the taxpayer may declare an innocent error. Where an auditor is satisfied that the underpayment of tax arose through innocent error, no penalty will apply.

Similarly, a penalty will not apply to a technical adjustment, described as adjustments to a tax liability, arising from differences in the interpretation or the application of legislation.

The auditor must be satisfied that the taxpayer had taken due care, and the treatment used was based on a reasonable interpretation of the law.

Where a taxpayer has not paid a tax liability which in future would be refunded, the Commissioner-General may decide not to collect this tax, or interest on this tax, where the taxpayer can prove that there is no loss of revenue.

This treatment is concessional and the Commissioner-General is mandated to ensure the correct operation of the tax so as to maintain the integrity. In determining whether to allow this concession, the Commissioner-General would consider the taxpayer's compliance record and level of co-operation with the tax auditors.

(b) MUKUBA MINING PLC
COMPUTATION OF INCOME TAX PAYABLE FOR THE TAX YEAR 2022

	K'000	K'000
Profit before tax		220,000
Add:		
Transfer pricing adjustment		
($7,195 - $3,500) x 2,000 x K14.75	109,003	
Depreciation	18,000	
Amortization	7,000	

Construction of hospital	20,000	
Sinking boreholes	13,000	
Hedging losses	5,000	
		172,003
		392,003
Less:		
Capital allowances on mining assets	12,000	
Construction of hospital		
(K20,000,000 x 20%)	4,000	
		(16,000)
Adjusted business profit		376,003
Disallowable interest		Nil
		376,003
Loss relief		(7,375)
Taxable mining profits		368,628
Company income tax		
(K368,628,000 x 30%)		110,588
Less:		
Provisional income tax paid		(60,000)
Income tax payable		50,588

Workings

(1) Disallowable interest

	K'000
Taxable mining profits	376,003
Add:	
Depreciation	18,000
Amortization	7,000
Interest expense (Finance cost)	20,000
Tax EBITDA	421,003
Finance cost	20,000
Allowable interest (K421,003 x 30%)	126,301
Disallowable interest	Nil

The whole interest expense is allowable because it is less than 30% of the Tax EBITDA.

(2) Loss relief

	K'000
Indexed loss brought forward	
($500,000 x K18.36) x [1 + (K14.75 – K18.36)/K18.36	7,375
Loss to be relieved	(7,375)
Loss carried forward	Nil

50% of taxable profit = K376,003,000 x 50% = K188,001,500.
The whole loss will be relieved since it is below 50% of the taxable business profit.

SOLUTION THREE

(a) Permanent establishment is defined in the OECD model convention as a fixed place of business through which the business of an enterprise is wholly or partly carried on.

Permanent establishment includes a place of management, a branch, office, factory, workshop, mine, oil or gas well, quarry or any other place of extraction of natural resources. A building site or construction or installation project may only constitute a permanent establishment if it lasts more than twelve (12) months.
FDG Zambia will constitute a permanent establishment as they have a fixed place of business (the building) through which the business is carried out. In addition they have an administrative building (offices) which were completed more than 12 months ago.
(1 mark per valid point up to 3 marks)

(b) The following are the tax incentives available to manufacturing companies:
(1) Guaranteed input tax claim for two (2) years prior to commencement of production
(2) Capital allowances on implements, plant and machinery used directly in manufacturing are available at an accelerated rate of 50% per annum.
(3) Exemption from customs duty on the importation of most capital machinery and equipment used in manufacturing.
(4) Capital allowances on industrial buildings used for the purposes of manufacturing are available at a rate of 5% in case of other industrial buildings and 10% for low-cost housing.
(5) Initial allowance is available at a rate of 10% of the capital expenditure incurred to construct or extend an industrial building in the tax year in which the building is brought into use.
(6) Investment allowance is available at a rate of 10% of the capital expenditure incurred to construct or extend an industrial building in the tax year in which the building is brought into use.
(7) Refund of Zambian VAT on export of Zambian products by non-resident businesses under the Commercial Exporters Scheme.
(8) Income from manufacturing of chemical fertilizer and manufacturing of products made out of copper cathodes, is taxed at a rate of 10% and 15% respectively.
(9) Reduced import duty on selected raw materials and inputs used in manufacturing.
(1 mark per valid point up to 5 marks)

(c) An individual is regarded as a resident in Zambia if that individual is physically present in Zambia for more than 183 days excluding the date of arrival and departure.

An individual is regarded as a resident from the date of arrival if he/she is coming to Zambia for the purpose that will take more than twelve (12) months or he/she comes to Zambia with intentions of establishing permanent residence in Zambia.

Scott MacArthur came to Zambia on 28 September 2022 to take up employment. He will therefore, be regarded as a resident on the date of arrival because he was expected to be in Zambia for more than twelve (12) months.
(1 mark per valid point up to 3 marks)

(d) SCOTT MACARTHUR
PERSONAL INCOME TAX COMPUTATION FOR THE TAX YEAR 2022

	K	K
Zambian income		
Salary: K71,200 x 3		213,600
Transport allowance: K213,600 x 12%		25,632
House maintenance expenses		
(K3,100 x 3)		9,300
		248,532
Foreign income		
Dividends (D$14,980 x 100/70 x K17.20	368,080	
Bank interest		
(D$6,800 x 100/85 x K17.20)	137,600	
		505,680
Taxable income		754,212
Income Tax		
First K82,800		8,460
Excess (K754,212 – K82,800) @37.5%		251,780
		260,240
Less:		
Pay as you earn		(46,280)
Double taxation relief:		
Dividends		(110,424)
Interest (W)		(20,640)
Income tax payable		82,896

Workings
(1) Dividends
Foreign tax paid = K368,080 x 30% = K110,424

Zambian tax

$$\frac{\text{Gross foreign income}}{\text{Total assessable income}} \times \text{Zambian tax charge}$$

$$\frac{K368,080}{K754,212} \times K260,240$$

= K127,006

The double taxation relief is therefore, K110,424 which is the lower of Zambian income tax charge.

(2) Interest
Foreign tax paid = K137,600 x 15% = K20,640

Zambian tax

$$\frac{K137{,}600}{K754{,}212} \times K260{,}240$$

= K47,479

The double taxation relief is therefore, K20,640 which is lower of the Zambian income tax charge.

SOLUTION FOUR

(a) The income that accrued to the deceased before the date of death is assessed on the deceased individual even if it is actually received after the date of death. In this case a final assessment should be made from the beginning of the tax year up to the date of death and the assessment should include all the income earned by the deceased up to the date of death.

Therefore, the income earned by Mr Abel Moono up to the date of death should be taxed on him and any balance of the income tax payable should be paid by the executors or administrators.

The amount of income tax payable on Mr Abel Moono's income will be as follows:
ABEL MOONO
PERSONAL INCOME TAX PAYABLE FOR THE TAX YEAR 2022

	K
Basic salary: K32,000 x 7 months	224,000
Housing allowance: K224,000 x 15%	33,600
	257,600
Less:	
Professional subscription	(5,200)
Taxable income	252,400
Computation	
First K82,800	8,460
Excess (K249,400 – K82,800) @37.5%	63,600
Income tax liability	72,060
Less:	
Pay as you earn	(84,298)
Income tax refundable	(12,238)

A claim for a refund of K12,238 can be filed to ZRA by the executors attaching the certificate of pay and other relevant documents.

(b) COMPUTATION OF INCOME TAX PAYABLE BY THE ESTATE

	Market values K
Bank savings accounts	260,000
Residential property	800,000
Commercial property	1,100,000
Shares in Moon Limited: 10,000 x K21	210,000
TLM Plc: 40,000 x K2.60	104,000
Various chattels	300,000
Gross estate	2,774,000
Tax @ 30%	(832,200)
Net inheritance	1,941,800
Inheritance due to:	
Albert Moono: K1,941,800 x 2/3	1,294,533

Martha Moono: K1,941,800 x 1/3	647,267
	1,941,800

(c) Person financial protection products

(i) Whole of life assurance

This policy protects the financial dependents from any adverse financial effects arising from death. The policy pays out the sum assured as a lump sum on the death of the life/lives assured to the guarantee whenever death occurs.

There is no tax relief for the policy premiums paid by an individual and the policy proceeds are not taxable.

However, if the policy is taken by the company to insure the life of a key employee in respect of loss of loss of profits, the premiums paid by the company are tax deductible and the policy proceeds are taxable as trading receipts.

(ii) Permanent health care insurance

This policy provides income replacement, payable in the event of the inability to perform own or suited or any occupation or activities of daily living following the predetermined deferral period due to illness or disability.

There is no tax relief for the policy premiums paid by an individual and the policy proceeds are not taxable.

If the employer insures the cost of his employee's salaries, the premiums paid by the company are tax deductible and the policy proceeds received are taxable as trading receipts.

(iii) Critical illness insurance

This policy pays a lump sum benefit, payable on the diagnosis of one from a list of life-threatening conditions. The life-threatening conditions include cancer, coronary artery bypass surgery, heart attack, kidney failure, major organ transplant, multiple sclerosis and stroke.

There is no tax relief for the policy premiums if paid by an individual and the policy proceeds are not taxable.
If the employer insures the cost of their employees' salaries, the premiums paid by the company are tax deductible and the policy proceeds are taxable as trading receipts.

SOLUTION FIVE

(a) A quality tax audit of the affairs of MGM Insurance should be able to achieve the following tax audit objectives:

(1) provide assurance that MGM Insurance accounts and records will be reviewed in sufficient depth to reach a supportable conclusion regarding all items of a material tax consequences.

(2) ensure that appropriate income tests will be performed where necessary to ensure the proper and complete reporting of income by MGM Insurance regardless of the source.

(3) provide assurance that MGM Insurance Ltd's responsibilities regarding the filing of all tax returns have been ascertained.

(4) ensure that the conclusions reached are by the tax auditor on the audit of MGM Insurance are expressed and documented in sufficient details to enable the reader to comprehend the process whereby such a conclusion was reached.

(b) Procedures performed to uncover hidden income

In order to uncover hidden income, the auditor will mainly consider third parties MGM Insurance has dealings with the taxpayer. Specifically, the auditor can perform the following procedures:

(1) Request the directors MGM Insurance Ltd to provide a statement of affairs setting out all of their assets and liabilities on a specified date to help assess the financial position and financial performance of the company.

(2) Request third parties, such as major suppliers and major customers of MGM Insurance to deliver or to make available for inspection any books and records or information and explanations in relation to the company that may be relevant to the company's liability to tax.

(3) Request financial institutions such as Commercial banks MGM Ltd has business accounts with to make available details of accounts and financial transactions, of MGM Insurance, which may be material in determining the company's tax liability.

(c) MGM INSURANCE LTD
COMPUTATION OF TAXABLE INCOME AND COMPANY INCOME TAX PAYABLE

	K'000	K'000
Gross premiums from customers		2,400,000
Interest income		300,000
		2,700,000
Premiums refunded		360,000
Unexpired premiums reserve at 1 January 2022	270,000	
Unexpired premiums reserve at 31 December 2022	330,000	

		(60,000)
Outstanding claims from customers at 1 Jan 2022	90,000	
Outstanding claims from customers at 31 Dec 2022	160,000	
		(70,000)
Less: allowable operating expenses		
staff salaries and wages	94,600	
Realised forex losses	500	
Administration expenses	680,800	
Miscellaneous allowable expenses	509,000	
Taxable income before capital allowances		(1,284,900)
		1,645,100
Less capital allowances (W)		(1,275)
Final Taxable income		1,643,825
Company income tax @30%		493,148
Less WHT on:		
GRZ Bond interest		
(K280,000 x 15%)		(42,000)
Fixed deposit interest		
(K20,000 x 15%)		(3,000)
Provisional income tax		(405,600)
Company income tax payable		42,548

WORKINGS

CAPITAL ALLOWANCES

Administration offices	
Wear and tear allowances	
(K35m x 2%)	700
Office furniture	
Wear and tear allowances	
(K700,000 x 25%)	175
Office equipment	
Wear and tear allowances	
(K1,600,000 x 25%)	400
	1,275

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA 3.5: ADVANCED MANAGEMENT ACCOUNTING

TUESDAY 21 MARCH 2023

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

INSTRUCTIONS TO CANDIDATES

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

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

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

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

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

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

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

8. Present legible and tidy work.

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

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

SECTION A

This Question is compulsory and must be attempted

<u>QUESTION ONE</u> – (COMPULSORY)

Kapiri Group Plc (KG Plc) was founded in 1991 by four brothers and it has traded successfully over the years. Its overall objective is to create the shareholders' wealth. KG Plc has four home based and two foreign based divisions. During the recent board meeting, the CEO, Ms Monica Banda, indicated the need to focus on ensuring future financial success. In particular, she believes that environmental considerations must be central to KG Plc's strategy in the future, much more so than in the past. It makes financial sense for KG Plc to 'get in there first 'and Ms Bwalya believes that this shift in strategy may be painful and expensive. However, it is necessary and the only way to achieve financial success in the medium to long-term.

KG plc has realised that many environmentally unfriendly products are coming to the end of their lifecycles as consumers get more environmentally conscious. KG Plc needs to accept the consumer preference and replace such products with greener alternatives. However, that doesn't preclude it from continuing to make good profits in the final stages of a product's lifecycle by increasing market share at the expense of our competitors.

Division A, operates in the energy sector and consists of a number of business units, nearly all of which are involved in the processing and sale of fossil fuels. The division sells 45% its products to the external market within the home country and exports the balance to Division E, in the foreign country. Division A has been financially very successful in recent years and, because of this KG Plc has allowed the Division Manager considerable autonomy. The principle of divisional autonomy means that Division Managers can invest and divest capital funds. In any year, the size of the Division Manager's bonus is determined by the extent to which the division's Return on Investment (ROI) exceeds its cost of capital (which is 12%). ROI is calculated by KG Plc as the net profit for the year divided by the net book value of the capital invested in the division at the beginning of the year.

On the basis of existing activities, it is likely that Division A's net profit next year (2023) will be K6,800,000 and that the net book value of its assets at 1 January 2023 will be K40,000,000. These figures do not include the effect of a possible new investment by the division in an additional business unit which would be involved in the production and supply of solar energy. This new solar energy business unit would require an additional investment of K2,600,000 for tangible non-current assets plus K3,000,000 for working capital which KG Plc would be willing to finance. This working capital of K3,000,000 will be reducing by K400,000 each year from year 2024 up to 2027, i.e over a five (5) year period. The investment would be made and operations would begin on 1 January 2023. It can be assumed that the new solar energy business unit would have a five-year life, and that the working capital investment would be recovered in full at the end of the project. The tangible non-current assets would be depreciated on a straight-line basis over the five (5) years with no residual value.

It is estimated that the net operating cash inflows from the new solar energy business unit over the five (5) years would be as follows:

Year	Amount (K)
2023	400,000
2024	1,200,000
2025	1,600,000
2026	1,800,000
2027	2,400,000

It should be assumed that all of these net operating cash flows would arise on the last day of the year to which they relate.

Required:

(a) Evaluate two (2) most appropriate performance measures that would address the overall objective of KG Plc. (15 marks)

(b) Discuss whether it would it be in the best interests of the KG Plc's shareholders for Division A to invest in the new solar energy business unit. Prepare calculations where necessary so as to form the basis of your discussion. (9 marks)

(c) Appraise potentially superior alternatives other than economic value added to the existing ROI-based performance evaluation and reward system. Perform necessary calculations where possible. (10 marks)

(d) Explain any six (6) factors that might affect transfer pricing in multinational companies such as KG Plc. (6 marks)

[Total: 40 Marks]

SECTION B

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

QUESTION TWO

Bafinka Motors Limited (BML) is a haulage company based in the northern part of the country. Its main objective is maximise profits. BML currently has 200 long base trucks servicing both its home country and other countries in the sub- region. It has operated since 1997 and has steadily grown. BML has been managed by a family ever since its foundation. It employs 305 staff including truck drivers, administrative and accounting staff. Recently, concerns have been raised over the performance of BML. The wage bill has always remained the major expenditure for the company and this prompted BML some five (5) years to implement a wage freeze. A Management Accountant who has been with company since its formation has just resigned. During the year ended 31 December 2021, BML reported the following; revenue K14.2m, cost of sales K4.8m and administration costs including wages K5.2m. Its equity was K10.88m with 15% Bank loan of K3.6m.

BML has signed a contract with the largest mining firm for five (5) years. The contract value is K7m and the projected total cost to complete the haulage is 55% of the contract value. BML has the initial K0.22m administrative funds available for this haulage.

BML is therefore seeking financing for this project and a venture capitalist firm has agreed to invest in BML's equity for a total of K3.52m. The venture capitalist firm will invest for 5 years and require a return on their investment of at least 18% per annum on a compound basis. Alternatively, the Company can obtain an additional loan of K3.52m for five (5) years at 19.25% interest to finance the project. BML pays tax on profits at 35%. The management at BML wishes to introduce return on capital employed (ROCE) as the main performance measure.

Required:

(a) Calculate the Return On Equity (ROE) before and after undertaking the project and recommend the best financing for the project. (14 marks)

(b) Evaluate the use of ROCE as the main performance measure for BML. (6 marks)

[Total: 20 Marks]

QUESTION THREE

Martin Rising Stars (MRS) Ltd was founded ten (10) years ago by two (2) friends who are former national team football players. It runs a number of football academies. The company identifies football talent among the teenagers and develops them into professional footballers. The role of chief executive officer has been rotating between the two (2) founders. MRS is currently being managed by Martin Musalale, who has targeted schools in the country to establish the academies. He is well-known and well-respected in the football circles.

MRS has performed reasonably well ever since it was establised. Its recruits come from many parts of the country, and many are referred from state-owned schools and private schools. The ages of students range from 14 to 18, and these recruits are given a normal academic education as well as specialising in football. Martin Musalale believes that there is need to improve various aspects of the current academies before opening some more. He is interested in the idea of benchmarking.

Required:

(a) Evaluate the different methods of benchmarking that might be used to assess the performance of the football academies and recommend the method benchmarking that might be used to help improve the performance in MRS. (10 marks)

(b) Explain the steps that management at MRS should take to establish a benchmarking programme. (7 marks)

(c) Identify some potential problems and shortcomings associated with benchmarking in reference to MRS. (3 marks)

[Total:20 Marks]

QUESTION FOUR

In country Z, the councils are run by the local government and in the last fifteen (15) years the performance in most councils has been very poor. Council employees have had their salaries delayed and most of the social health amenities are run down. Successive Governments have called for self-sustenance in local governments.

At a recently conference in the tourist city, the minister of local government, in his key note speech emphasized on efficiency and effectiveness in all areas of local Governments. The Minister indicated that due to limited funding from the central government the councils should develop innovative means of generating income in order to sustain their operations. He also mentioned that his ministry had developed and introduced the use of appropriate performance indicators.

The Council management of town B, has engaged you as a performance management expert with the view of helping it achieve its goals. The council secretary, who is head of the council management, wants to know the concepts of efficiency and effectiveness. Due to the nature of the organization it will be difficult to measure performance. The Director of Finance has suggested the use of the balanced scorecard to measure performance. She has also suggested the introduction of rolling budgets.

Required:

(a) Explain the concepts of efficiency and effectiveness within the context of local Government. Use performance measures in road maintenance operations (or some other local authority activity/operation) to illustrate your points. (6 marks)

(b) Explain the use of performance indicators in the public sector with particular reference to the balanced scorecard. (6 marks)

(c) Evaluate the use of rolling budgetary system in environments such as local Government. (8 marks)

[Total:20 marks]

<u>QUESTION FIVE</u>

Chuundu Plc manufactures milk products including biscuits, cheese, shakes and lacto. It is the organisation's major aim to sustain long term growth. The company recently increased its production capacity. It has since entered into long term contracts with both its suppliers and retailers.

Chuundu Plc has increased its activities and has, therefore, introduced the Enterprise Resource Planning System (ERPS). The ERPS will improve decision making because decision making will be moved to departmental managers such as purchasing, warehousing and Sales and Marketing Managers. In this arrangement it expected that purchasing will now liaise more closely with sales and marketing in order to ensure that the best possible and most profitable product range is available.

The Finance Director has proposed that the company transitions from the current absorption costing to activity based costing. He believes that ABC will improve performance reporting in Chuundu Plc. However, other directors have argued that there is no need to change the current system as it is working perfectly.

Required:

(a) Explain how the role of the Management Accountant would change in the current business environment in broad terms and explain three drivers of change which are making Management Accountants change the way they support organisational performance. (12 marks)

(b) Explain how activity based costing (ABC) would improve performance reporting in a company such as Chuundu Plc. (8 marks)

[Total:20 Marks]

END OF PAPER

Modified Internal Rate of Return

$$MIRR = \left[\frac{PV_R}{PV_I}\right]^{\frac{1}{n}}\left(1 + r_e\right) - 1$$

The Black-Scholes option pricing model

$$c = P_a N(d_1) - P_e N(d_2) e^{-rt}$$

Where:

$$d_1 = \frac{\ln(P_a / P_e) + (r + 0.5s^2)t}{s\sqrt{t}}$$

$$d_2 = d_1 - s\sqrt{t}$$

The Put Call Parity relationship

$$p = c - P_a + P_e e^{-rt}$$

Present Value Table

Present value of 1 i.e. $(1 + r)^{-n}$

Where r = discount rate
n = number of periods until payment

Discount rate (r)

Periods (n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0·990	0·980	0·971	0·962	0·952	0·943	0·935	0·926	0·917	0·909	1
2	0·980	0·961	0·943	0·925	0·907	0·890	0·873	0·857	0·842	0·826	2
3	0·971	0·942	0·915	0·889	0·864	0·840	0·816	0·794	0·772	0·751	3
4	0·961	0·924	0·888	0·855	0·823	0·792	0·763	0·735	0·708	0·683	4
5	0·951	0·906	0·863	0·822	0·784	0·747	0·713	0·681	0·650	0·621	5
6	0·942	0·888	0·837	0·790	0·746	0·705	0·666	0·630	0·596	0·564	6
7	0·933	0·871	0·813	0·760	0·711	0·665	0·623	0·583	0·547	0·513	7
8	0·923	0·853	0·789	0·731	0·677	0·627	0·582	0·540	0·502	0·467	8
9	0·941	0·837	0·766	0·703	0·645	0·592	0·544	0·500	0·460	0·424	9
10	0·905	0·820	0·744	0·676	0·614	0·558	0·508	0·463	0·422	0·386	10
11	0·896	0·804	0·722	0·650	0·585	0·527	0·475	0·429	0·388	0·305	11
12	0·887	0·788	0·701	0·625	0·557	0·497	0·444	0·397	0·356	0·319	12
13	0·879	0·773	0·681	0·601	0·530	0·469	0·415	0·368	0·326	0·290	13
14	0·870	0·758	0·661	0·577	0·505	0·442	0·388	0·340	0·299	0·263	14
15	0·861	0·743	0·642	0·555	0·481	0·417	0·362	0·315	0·275	0·239	15

(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0·901	0·893	0·885	0·877	0·870	0·862	0·855	0·847	0·840	0·833	1
2	0·812	0·797	0·783	0·769	0·756	0·743	0·731	0·718	0·706	0·694	2
3	0·731	0·712	0·693	0·675	0·658	0·641	0·624	0·609	0·593	0·579	3
4	0·659	0·636	0·613	0·592	0·572	0·552	0·534	0·516	0·499	0·482	4
5	0·593	0·567	0·543	0·519	0·497	0·476	0·456	0·437	0·419	0·402	5
6	0·535	0·507	0·480	0·456	0·432	0·410	0·390	0·370	0·352	0·335	6
7	0·482	0·452	0·425	0·400	0·376	0·354	0·333	0·314	0·296	0·279	7
8	0·434	0·404	0·376	0·351	0·327	0·305	0·285	0·266	0·249	0·233	8
9	0·391	0·361	0·333	0·308	0·284	0·263	0·243	0·225	0·209	0·194	9
10	0·352	0·322	0·295	0·270	0·247	0·227	0·208	0·191	0·176	0·162	10
11	0·317	0·287	0·261	0·237	0·215	0·195	0·178	0·162	0·148	0·135	11
12	0·286	0·257	0·231	0·208	0·187	0·168	0·152	0·137	0·124	0·112	12
13	0·258	0·229	0·204	0·182	0·163	0·145	0·130	0·116	0·104	0·093	13
14	0·232	0·205	0·181	0·160	0·141	0·125	0·111	0·099	0·088	0·078	14
15	0·209	0·183	0·160	0·140	0·123	0·108	0·095	0·084	0·074	0·065	15

Annuity Table

Present value of an annuity of 1 i.e. $\frac{1-(1+r)^{-n}}{r}$

Where r = discount rate
n = number of periods

Discount rate (r)

Periods (n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0·990	0·980	0·971	0·962	0·952	0·943	0·935	0·926	0·917	0·909	1
2	1·970	1·942	1·913	1·886	1·859	1·833	1·808	1·783	1·759	1·736	2
3	2·941	2·884	2·829	2·775	2·723	2·673	2·624	2·577	2·531	2·487	3
4	3·902	3·808	3·717	3·630	3·546	3·465	3·387	3·312	3·240	3·170	4
5	4·853	4·713	4·580	4·452	4·329	4·212	4·100	3·993	3·890	3·791	5
6	5·795	5·601	5·417	5·242	5·076	4·917	4·767	4·623	4·486	4·355	6
7	6·728	6·472	6·230	6·002	5·786	5·582	5·389	5·206	5·033	4·868	7
8	7·652	7·325	7·020	6·733	6·463	6·210	5·971	5·747	5·535	5·335	8
9	8·566	8·162	7·786	7·435	7·108	6·802	6·515	6·247	5·995	5·759	9
10	9·471	8·983	8·530	8·111	7·722	7·360	7·024	6·710	6·418	6·145	10
11	10·37	9·787	9·253	8·760	8·306	7·887	7·499	7·139	6·805	6·495	11
12	11·26	10·58	9·954	9·385	8·863	8·384	7·943	7·536	7·161	6·814	12
13	12·13	11·35	10·63	9·986	9·394	8·853	8·358	7·904	7·487	7·103	13
14	13·00	12·11	11·30	10·56	9·899	9·295	8·745	8·244	7·786	7·367	14
15	13·87	12·85	11·94	11·12	10·38	9·712	9·108	8·559	8·061	7·606	15

(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0·901	0·893	0·885	0·877	0·870	0·862	0·855	0·847	0·840	0·833	1
2	1·713	1·690	1·668	1·647	1·626	1·605	1·585	1·566	1·547	1·528	2
3	2·444	2·402	2·361	2·322	2·283	2·246	2·210	2·174	2·140	2·106	3
4	3·102	3·037	2·974	2·914	2·855	2·798	2·743	2·690	2·639	2·589	4
5	3·696	3·605	3·517	3·433	3·352	3·274	3·199	3·127	3·058	2·991	5
6	4·231	4·111	3·998	3·889	3·784	3·685	3·589	3·498	3·410	3·326	6
7	4·712	4·564	4·423	4·288	4·160	4·039	3·922	3·812	3·706	3·605	7
8	5·146	4·968	4·799	4·639	4·487	4·344	4·207	4·078	3·954	3·837	8
9	5·537	5·328	5·132	4·946	4·772	4·607	4·451	4·303	4·163	4·031	9
10	5·889	5·650	5·426	5·216	5·019	4·833	4·659	4·494	4·339	4·192	10
11	6·207	5·938	5·687	5·453	5·234	5·029	4·836	4·656	4·486	4·327	11
12	6·492	6·194	5·918	5·660	5·421	5·197	4·988	4·793	4·611	4·439	12
13	6·750	6·424	6·122	5·842	5·583	5·342	5·118	4·910	4·715	4·533	13
14	6·982	6·628	6·302	6·002	5·724	5·468	5·229	5·008	4·802	4·611	14
15	7·191	6·811	6·462	6·142	5·847	5·575	5·324	5·092	4·876	4·675	15

CA 3.5: ADVANCED MANAGEMENT ACCOUNTING SUGGESTED SOLUTIONS

SOLUTION ONE

(a) **Two most appropriate performance measures**

KG Plc should either use the Economic Value Added or Shareholders value as appropriate measures for the overall objective of creating value for shareholders. The following is the evaluation of the two measures:

Economic Value Added - EVA™

EVA™ gives an absolute measure, rather than a percentage value of performance, and if EVA™ is positive it indicates that an organisation is generating a return greater than that required by the providers of finance. In other words, a positive EVA™ indicates that an organisation is creating wealth for the shareholders.

The advantages of EVA™ include the following:

(i) Real wealth for shareholders. Maximisation of EVA™ will create real wealth for the shareholders. Maximising the present value of future cash flows will help maximise shareholders' wealth.

(ii) Less distortion by accounting policies. The adjustments within the calculation of EVA™ mean that the measure is based on figures that are closer to cash flows than accounting profits.

(iii) Consistent with NPV. EVA™ is consistent with the idea of NPV, showing the return on projects in excess of the cost of financing them. Any projects which would generate a positive NPV will also increase EVA™.

(iv) An absolute value. The EVA™ measure is an absolute value, which is easily understood by nonfinancial managers.

(v) Treatment of certain costs as investments thereby encouraging expenditure. If management are assessed using performance measures based on traditional accounting policies, they may be unwilling to invest in areas such as advertising or research and development because the costs incurred by those activities will reduce the current year's accounting profit. EVA™ recognises such costs as investments for the future and thus they do not immediately reduce the EVA™ in the year of expenditure. This will reduce the temptation to short-termism (which may occur under ROCE or ROI).

EVA™ drawbacks

(i) Dependency on historical data. EVA™ is based on historical accounts, which may be of limited use as a guide to the future. In practice, the influences of accounting policies on the starting profit figure may not be completely negated by the adjustments made to it in the EVA™ model.

(ii) Number of adjustments needed to measure EVA™. Making the necessary adjustments can be problematic, as sometimes a large number of adjustments are required to accounting profit in order to calculate NOPAT.

(iii) Comparison of like with like. EVA™ is an absolute measure, so larger companies in size may have larger EVA™ figures than smaller companies, simply because they are bigger, not because they are performing better. Allowance for relative size must be made when comparing the relative performance of companies. In this respect, ROI (which shows a

percentage measure) may be better for comparing performance between companies of different size.
(iv) Difficulty in estimating WACC. Many organisations use models such as the capital asset pricing model for estimating WACC. However, this is not a universally accepted method of determining the cost of equity.

Shareholders value

The philosophy of the shareholder approach attempts to increase the organization's value by enhancing firm's earnings, by increasing the market value of company's shares and by increasing also the frequency or amount of dividend paid.

Shareholder value analysis(SVA) states that the management of a company should first consider the interest and the benefits of the shareholders before it makes any decision. The advantages of SVA are performed as follows:

- It provides a long term financial view on which to base strategic decisions
- It provides a universal approach that is not subject to the particular accounting policies that are adopted. It is therefore internationally applicable and can be used across sectors.
- It forces the organization to focus on the future and its customers, in particular the value of future cash flows.

However disadvantages of the shareholder value analysis are performed as follows:

- Estimation of future cash flows, a key component of SVA, can be extremely difficult to estimate accurately. This can lead to incorrect or misleading figures forming the basis of strategic decisions.
- Development and implementation of the system can be long and complex.
- Management of shareholder value requires more complete information than traditional measures.

(b) Shareholders' best interests
NPV analysis:
Cash flows: (K'000)

		31st December each year				
	1 January 2023 Yo	23 Y1	2024 Y2	2025 Y3	2026 Y4	2027 Y5
Investment	(2,600)	-	-	-	-	-
Working capital	(3,000)	+400	+400	+400	+400	+400
Working capital recovery						1,000
Net operating cash flow		400	1,200	1,600	1,800	2,400
	(5,600)	800	1,600	2,000	2,200	3,800
DCF 12%	1.0	0.893	0.797	0.712	0.636	0.567

PV	(5,600)	714.4	1,275.2	1,424	1,399.2	2,154.6

NPV = + K1,367.4

The NPV is positive. Purely in purely financial terms, the investment in the new solar energy business unit should go ahead. Apparently this project would generate positive shareholder value and would be in shareholders' best interests.

Long-term strategic choices:

KG Plc has made an explicit strategic judgment that any of its existing business activities which are environmentally unfriendly have only limited commercial potential in the long run. Consequently, KG Plc has determined that its best financial interests require it to seek out more environmentally-friendly alternatives which are more sustainable and therefore have greater long-term potential. So far as Division A is concerned, the new solar energy business unit is exactly the kind of investment which KG Plc would like to see undertaken, given that the division's existing fossil fuel based activities are of the type which KG Plc perceives as being near the end of their commercial life.

(c) **Alternative performance evaluation and reward systems**

Option 1: Residual Income as an alternative performance measure:

	2023	2024	2025	2026	2027
	K'000	K'000	K'000	K'000	K'000
Capital employed (w1)	5,080	4,160	3,240	2,320	1,400
Finance charge 12%	0.12	0.12	0.12	0.12	0.12
	(609.6)	(499.2)	(388.8)	(278.4)	(168)
Operating profit /(loss) (w2)	(120)	680	1,080	1,280	1,880
Residual income	(729.6)	180.8	691.20	1,001.6	1,712

Working 1: Capital employed

Year	2023	2024	2025	2026	2027
Open NBV	2,600	2,080	1,560	1,040	520
Depn	520	520	520	520	520
C/s NBV	2,080	1,560	1,040	520	0
Working capital	3,000	2,600	2,200	1,800	1,400
Capital employed	5,080	4,160	3,240	2,320	1,400

2: Operating Profit/Loss

Year	2023	2024	2025	2026	2027
Cash flow (K'000)	400	1,200	1,600	1,800	2,400
Depreciation (K'000)	(520)	(520)	(520)	(520)	(520)
Operating profit/loss (K'000)	(120)	680	1,080	1,280	1,880

It seems unlikely in this case that Residual Income will significantly increase the likelihood that the division manager would take the decision to invest in solar energy business unit, even if she were assessed on the basis of Residual Income.
As shown here the Residual Income effect is negative in the first year (2023) and only becomes positive thereafter.

Option 2: A multivariate performance evaluation and reward scheme:
The best way to encourage particular strategic choices may be to explicitly reward a division manager for pursuing them. For example, instead of determining Division A manager's bonus on the basis of ROI alone, a system which explicitly rewards environmentally-friendly investments would encourage the division manager to invest in them. For example, part of his/her bonus might be linked to the proportion of revenues derived from green energy activities (like solar energy) as opposed to fossil fuel energy activities (which the division's existing business units are involved in).

(d) **Six factors that might affect transfer pricing**

1. **Exchange rate fluctuation:** The value of a transfer of goods between profit centres in different countries could depend on fluctuations in the currency exchange rate.
2. **Taxation in different countries:** If taxation on profits is 20% of profits in Country 1 and 50% of profits in Country 2, a company will presumably try to 'manipulate' profits (by means of raising or lowering transfer prices or by invoicing the subsidiary in the high-tax country for 'services' provided by the subsidiary in the low-tax country) so that profits are maximised for a subsidiary in Country 1, by reducing profits for a subsidiary in Country 2.

   Artificial attempts at reducing tax liabilities could, however, upset a country's tax officials if they discover it and may lead to some form of penalty. Many tax authorities have the power to modify transfer prices in computing tariffs or taxes on profit, although a genuine arms-length market price should be accepted.
3. **Import tariffs/customs duties:** Suppose that Country 1 imposes an import tariff of 20% on the value of goods imported. A multi-national company has a subsidiary in Country 1 which imports goods from a subsidiary in Country 2. In such a situation, the company would minimise costs by keeping the transfer price to a minimum value.
4. **Exchange controls:** If a country imposes restrictions on the transfer of profits from domestic subsidiaries to foreign multinationals, the restrictions on the transfer can be overcome if head office provides some goods or services to the subsidiary and charges exorbitantly high prices, disguising the 'profits' as sales revenue, and transferring them from one country to the other. The ethics of such an approach should, of course, be questioned.
5. **Anti-dumping legislation:** Governments may take action to protect home industries by preventing companies from transferring goods cheaply into their countries. They may do this, for example, by insisting on the use of a fair market value for the transfer price.
6. **Competitive pressures:** Transfer pricing can be used to enable profit centres to match or undercut local competitors.

SOLUTION TWO

(a) Return on equity

Details	Before	Venture capitalist	Debt financing
	K'm	K'm	K'm
Operating profit (PBIT)	4.2	7.63	7.12
Interest	(0.54)	(0.54)	(1.21)
Profit before tax	3.66	7.09	5.91
Tax@35%	(1.281)	(2.481)	(2.069)
Profit after tax	2.379	4.609	3.841
Equity	10.88	33.0	10.88
ROE	21.9%	13.9%	35.3%

Workings:

1) Operating profit
   Before financing: K14.2m-K4.8m-K5.2m = K4.2m
   Venture Capitalist: K4.2m + (18%x3.52m) + K2.8m = K7.63m
   Debt financing: K4.2m + (19.25% x.3.52m) + K224m = K7.12m

2) Interest
   Before financing: 15% of K3.6m = K0.54m
   Venture capitalist: 15% of K3.6m = K0.54m
   Debt financing: 19.25% of K3.52 = K0.68m;

Total equity
Equity capital invested by venture capitalist = K3.52m
Return of 18% for 5years = K3.52m x $(1.18)^5$ = K8.05m
VC represents {3.52m / (3.52m + 10.88m)} 24.4% of the equity, therefore total equity value for BML in 5 years' time must be (K8,052,907 / 0.244) = K33.0m

ROE is calculated as profit for the year divided by total equity. Before the project, the ROE is 21.9%, with financing the project using VC; the ROE is projected at 13.9%, and 35.3% using debt financing.
The purpose of ROE is to indicate how efficiently a company uses the capital it receives from its owners to generate a return to those shareholders. Because net income can be manipulated in many different ways, however, ROE is not a reliable indicator of efficiency when used on its own. The company has two options when it wants to raise funds to improve profits. It can take on debt or it can take on new equity through VC. It is critical for a company to be able to employ this investment efficiently, regardless of the source. The ROE only reflects the results of the company's equity investments, though. This means that the company could be highly-geared with a risky amount of debt and it will show an improving ROE if that debt as the case with BML. ROE must be looked at with other measures such as Return on Investment in order to present a more balanced snapshot of the company.

(b) ROCE
   ROCE would be an ideal performance measure for the objective of BML, to maximise the profit.

It gives a measure of the underlying performance of the business before finance. It gives an indication of the health of the business in generating a return on its investments.

Gearing has no impact on the return and hence this is the most important measure of profitability to calculate.

One of the main criticisms of ROCE as a performance measure is that it can encourage short-term decision making.

If BML decides to use assess its performance on the basis of ROCE, this may discourage capital investment, because an increase in capital without a corresponding increase in profit before interest and tax may lead to a fall in ROCE.

However, such a failure to invest is likely to have an adverse effect on the business's performance in the longer term.

SOLUTION THREE

(a) Benchmarking methods

There are three types of benchmarking that the company might consider: internal benchmarking, competitive benchmarking and functional benchmarking.

Internal benchmarking

This is based on the assumption that within an organisation, there are several different units performing very similar activities. In the case of MRS, the company operates a number of football academies. It is also assumed that some units will perform better than others, at least in certain respects.

The internal benchmarking process therefore involves comparing the performance of the different units with each other. The aim is to identify 'best practice', and the ways in which one unit is performing better than the others. It should then be possible to apply the best practice in the other units, and so improve the performance of the company as a whole.

In order to carry out any benchmarking exercise, it is important to identify key aspects of performance for measurement, and having done this, to establish one or more suitable measures. The benchmarking exercise involves measuring these pre-determined aspects of performance, and analysing the differences and their causes.

A limitation of internal benchmarking, however, is its assumption that best practice can be identified within the entity itself. In practice, this might not be the case. All the academies of MRS might use similar sub-optimal practices and achieve sub-optimal performance. Comparing their performance might therefore fail to reveal any information of value.

Competitive benchmarking

This is based on similar general principles as internal benchmarking, but with the significant difference that one or more competitors are selected for comparison. The external benchmark should be a successful competitor, preferably a successful football academy company with academies in the same areas as the MRS academies, or a company that attracts its recruits from state-owned schools and private schools.

The aim of competitive benchmarking is to establish whether the competitor performs better in the key performance areas, and if it does, to consider ways of removing the 'gap', and bringing performance up to or above the level of the competitor. If the company is able to do this, it should become more competitive, and more successful.

However, the success of competitive benchmarking depends of obtaining useful information about the performance of the main competitors. Rival academies are unlikely to volunteer the information, and it would therefore be necessary to obtain information for comparison from whatever reliable sources there might be.

Process benchmarking

This is based on the view that it is not necessary to compare practices with similar types of organisation. Useful information about best practice can be obtained by comparing particular processes within the entity with similar processes in different types of entity. For example, MRS might establish performance measurements for recruitment activities with similar processes of a boxing academy or an athletics academy.

Processes relating to normal academic education might be compared with similar teaching in a normal but successful academic school.

Process benchmarking can help an entity to identify weaknesses in particular areas of its activities. The entity therefore needs to be aware of weaknesses that exist, in order to look for another entity that would be willing to provide the benchmark for that particular process. The co-operation of the other entity is also required, but this is realistically more achievable than with competitive benchmarking.

(b) Establishing a benchmarking programme

The following steps should be taken by management of MRS:

Step 1: Select process to be benchmarked

Senior management need to identify the fact that there are probably weaknesses in operations that can be identified and rectified by means of benchmarking.

A decision has to be made about what type of benchmarking would be most appropriate in the circumstances. If internal benchmarking is selected, management would be assuming that best practice was already being achieved. If competitive benchmarking is preferred, management need to recognise that one or more competitors are performing better, and that the differences in performance need to be identified. The choice of functional benchmarking would be appropriate only if management know which functions they wish to improve.

Step 2: Assign responsibilities

A team of people should be put in place to manage the benchmarking process and to ensure the objectives are achieved.

Step 3: Identify potential partners to benchmark against

Having decided which type of benchmarking method to use, the company needs to plan the exercise. With internal benchmarking, the management of the individual academies will probably have to be consulted, and involved in the process. With functional or competitive benchmarking, an external organisation to act as the benchmark needs to be identified, and its co-operation obtained.

The key areas of performance for benchmarking, and the measures of performance that will be used, should also be planned, at least in outline.

Step 4: Collect data

The next step is to collect, analyse and evaluate information on the benchmarking partners. This may be a difficult stage of the process, particularly if the partners are competitors.

Step 5: Identify best practice

Once the data has been evaluated a summary of best practice points can be established.

Step 6: Implement the change

The next step is to implement best practice. This should help the business to achieve competitive advantage.

Step 7: Review success

It is important to monitor the progress of the benchmarking process and to evaluate the overall success of any changes that have been implemented.

(c) Benchmarking has the potential to create problems if it is mismanaged:

Performance measures must be comparable, otherwise the results may lead to costly distractions and mistakes. For example, measuring performance standards in an area such as football will be subjective. Different coaches may benchmark to different standards and generate results that are not comparable.

Benchmarking may also be difficult when the inputs are different. For example, one academy might draw heavily from a catchment area where the local state schools place a great deal of emphasis on football. Footballers referred from those schools might appear to be progressing more rapidly than those at another academy where the local conditions are very different.

Benchmarking also requires the ability to rank different outcomes so that targets are realistic. For example, a competitive benchmark comparing performance in football and academic subjects might reveal that some academies perform better in the former and others in the latter. That might suggest that academies which focus on dance tend not to devote sufficient time and resources to academic subjects and vice versa. MRS should avoid trying to equal the best performance in both areas unless it can find some means of dealing with the inherent conflict between the two.

SOLUTION FOUR

(a) Efficiency is the maximum possible use of a given set of resources. That is, it involves a straight comparison of output and input.

Measures taken to improve efficiency in the public sector included the 'introduction' of obligatory competitive tendering whereby public works departments were forced to compete with outside contractors for the provision of services of all kinds. Experience over the last twenty years suggests that this process has considerably improved efficiency in local authorities. This means that the public obtain greater 'value for money'.

Effectiveness relates to an organisation's objectives. It does not matter how efficiently operations are carried out, if those operations are not contributing to the organisation's objectives. This concept is a little more difficult to handle than efficiency. An Not-For-Profit Organisation(NFPO) will normally have a number of stated objectives. For example, a local government may have 'maintaining an acceptable quality of life for elderly residents' as one of its objectives. It has several means by which it may achieve this objective, including:

- providing a mobile library (Libraries Department)
- maintaining access to and facilities in local parks (Parks Department)
- providing nursing homes (Housing Department).

All of these departmental activities contribute to achievement of the objective and the effectiveness of the organisation. The problem is to find the optimum combination of spending for each of the departments.

One may find that a small cut back in spending in one area (e.g. the withdrawal of a mobile library) may help allocate more funds towards meals in schools.

The key to effectiveness is in finding an optimum pattern of spending to achieve a given objective.

Effectiveness is, by its very nature, rather more difficult to measure than efficiency.

However it should be appreciated that performance in an NFPO organisation is a function of both efficiency and effectiveness. Performance measurement has to take account of this.

(b) Performance measures are an essential element in the methodology of control. Such measures should focus on both inputs to and outputs from the process. In this way, one can obtain an impression of both efficiency and effectiveness.

If one is measuring the performance of a road maintenance operation then performance indicators might include the following:

- average hourly rate paid to labour force
- average price paid per kg of tarmacadam used
- average price paid to resurface 10m2 of road
- average annual operating cost per vehicle used
- average length of road closed for maintenance through out the year
- average number of unrepaired pot holes per km of road
- resident complaints per year/residents concerning road quality
- number of car crashes per year attributed to road surface faults
- average time taken to repair reported road surface fault

Using all of these measures provides a 'broad based' impression of performance which considers many aspects of the operation. For example, if cheap, poor-quality tar macadam is used then this will impact favourably on one performance measure (price per kg) but adversely on others because repairs will be sub-standard. There are alternative possible approaches to road maintenance – e.g a focus on repairing faults as they occur or a focus on preventative maintenance by resurfacing all roads on a 'rolling programme'. A full range of performance measures will report on the relative effectiveness of these alternatives.

(c) **Rolling budgets**

A rolling budget is a budget which is continuously updated by adding a further period (a month or quarter) when the earliest period has expired.

Rolling budgets are an attempt to prepare targets and plans which are more realistic and certain particularly with regard to price levels, by shortening the period between preparing budgets.

Instead of preparing a periodic budget annually for the full budget period, there would be budgets every one, two, three or four months. Each of these budgets would plan for the next twelve months so that the current budget is extended by an extra period as the current period ends: hence the name rolling budgets.

Rolling budgets reduces the uncertainty of budgeting for organisations operating in an unstable environment. It is easier to predict what will happen in the short-term.

Planning and control will be based on a more recent plan which is likely to be more realistic and more relevant than a fixed annual budget drawn up several months ago. Realistic targets provide a better basis on which to appraise managers' performance and likely to have a better motivational effect on managers hence improving the performance of the organization.

SOLUTION FIVE

(a) Role of management accountant

In their study, Burns and Scapens summarised the changes that have occurred over the past 20 years. They noted the change in management accounting was in the use rather than the form of accounting.

The management accountant has become more of an internal consultant advising different managers rather than working as a specialist within the finance department. This new role as being a hybrid accountant is focusing primarily on business support and financial control. This is contrasted with the traditional view where accountants were independent from operational managers in order to allow them to objectively judge and report their accounting information to senior management.

The three drivers of this change identified by Burns and Scapens are technology, management structure and competition.

However, it has also been commented that many accountants believe that the need for change in the management accountant's role may only be a passing fashion although it has appeared to have persisted.

Technology

A significant change has occurred in the quality and quantity of information technology. In the past, the management accountant working in the finance department would be one of the few people in the organisation who had access across all the IT systems in the different departments of Chuundu Plc. The information which was generated would often be used to prepare financial reports for management. Now, however, systems, such as the new ERPS, allow users across the organisation to input data and run reports giving the type of analysis once only available within the finance department. As a result, the management accountant now acts as another user of the system. It will be critical to the success of the ERPS that the hybrid accountant successfully assists the managers in getting the right information

from the large volume which will be available from the ERPS and data warehouse.

Management structure

The responsibility for decision-making in Chuundu Plc has often moved from departmental heads to the cross-departmental team leaders. These leaders will be making budgeting decisions and producing pricing and profit forecasts with the assistance of the hybrid accountant. The hybrid accountant will link the teams with strategic decision-making helping to ensure that there is effective, autonomous team management which is aligned with the strategic objectives of the whole business.

Competitive environment

The need to catch up with competitors is one of the main objectives of the IT changes. The more traditional accountant's focus had often been short term but this is changing with the use of more long-term measures of performance.

This is certainly the case at Chuundu Plc, where a principal aim is the long-term growth for the company. This will entail the accountant understanding the needs of the particular manager and then working with them to extract valuable reports from the ERPS. This may require the development of different performance measures beyond the traditional measure of profit. For example, it may be important to build customer loyalty initially before building profitability. Thus,

understanding the point at which a customer can be moved from initial loss-leader to more profitable sales will be key to Chuundu Plc's success.
Eventually, it will be this knowledge which will become amongst the valuable commercial secrets for Chuundu Plc.

(b) **Activity Based Costing (ABC)**

Activity Based Costing (ABC) is an 'Approach to the costing and monitoring of activities which involves tracing resource consumption and costing final outputs. Resources are assigned to activities and activities to cost objects based on consumption estimates. The latter utilise cost drivers to attach activity costs to outputs.' *(CIMA Official Terminology)*
The information provided by analysing activities can support the management functions of planning, control and decision making, provided it is used carefully and with full appreciation of its implications.

Planning
Before an ABC system can be implemented, management must analyse the organisation's activities, determine the extent of their occurrence and establish the relationships between activities, products and their cost.
The information database produced from such an exercise can then be used as a basis for forward planning and budgeting. For example, once an organisation has set its budgeted production level, the database can be used to determine the number of times that activities will need to be carried out, thereby establishing necessary departmental staffing and machine levels. Financial budgets can then be drawn up by multiplying the budgeted activity levels by cost per activity.
This activity-based approach may not produce the final budget figures but it can provide the basis for different possible planning scenarios.

Control
The information database also provides an insight into the way in which costs are structured and incurred in service and support departments. Traditionally it has been difficult to control the costs of such departments because of the lack of relationship between departmental output levels and departmental cost. With ABC, however, it is possible to control or manage the costs by managing the activities which underlie them by monitoring a number of key performance measures.

Decision making
Many of ABC's supporters claim that it can assist with decision making in a number of ways.
- Provides accurate and reliable cost information
- Establishes a long-run product cost
- Provides data which can be used to evaluate different ways of delivering business.

It is therefore particularly suited to the following types of decision.
- Pricing
- Promoting or discontinuing products or parts of the business
- Redesigning products and developing new products or new ways to do business

Note, however, that an ABC cost is not a true cost. It is simply a long run average cost because some costs such as depreciation are still arbitrarily allocated to products. An ABC cost is therefore not a relevant cost for all decisions.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA 3.6: ADVANCED FINANCIAL MANAGEMENT

FRIDAY 24 MARCH 2023

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

INSTRUCTIONS TO CANDIDATES

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

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

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

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

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

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

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

8. Present legible and tidy work.

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

10. Formulae, Present Value, Annuity and normal distribution tables are attached at the end of the question paper.

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

SECTION A

QUESTION ONE – (COMPULSORY)

Scenario One

BlackSwan ltd is a manufacturer of construction and road equipment, and has an international market for its products. Your company places a strong emphasis on innovation and design with patent protection across all its product range.

The company has two (2) principal manufacturing centres, one in Europe which has been reduced in size in recent years because of high labour costs and the other in South East Asia. However, BlackSwan Ltd's development has relied upon ready access to the debt market both in Europe and in South East Asia and the company is planning significant expansion with a new manufacturing and distribution Centre in Zambia.

Your company is highly profitable with strong cash flows although in the last two (2) quarters there has been a downturn in sales in all markets as the global COVID–19 pandemic begun to take effect. However, industry prospects are bright given a boom in commodity prices.

According to global debt updates, global debt rose by 28% to 256% of GDP, in 2020. This is the largest annual debt increase in global debt since the World War II, as the world was impacted by the global health crisis and deep recession. Credit conditions deteriorated across all of the major economies as banks curtailed their lending. In response some banks also attempted to repair their financial positions by making rights and other equity issues.

The Chief Executive Officer (CEO) of the company, Glenn Kinnstler, is planning a round of meetings with a number of investment banks in leading financial centres around the world to explore raising a $350 million loan for the new development. It has already been suggested that a loan of this size would need to be syndicated or alternatively raised through a bond issue.

In preparation for the meetings, the CEO has asked you as the company's Chief Financial Officer to provide him with some briefing notes.

Required:

(a) Given conditions in the global debt market as described above, advise on the likely factors banks will consider in offering a loan of this size. (7 marks)

(b) Assess the relative advantages of loan syndication versus a bond issue to BlackSwan Ltd. (7 marks)

(c) Assess the pros and cons of entering into a capital investment under current global economic conditions. (6 marks)

Scenario Two

BlackSwan Ltd is also considering an investment in a new technology that will reduce operating costs at one of its existing factories, through increasing energy efficiency and decreasing pollution. The new technology will cost K1 million and has a four (4) year life, at the end of which it will have a scrap value of K100,000.

A license fee of K104,000 is payable at the end of the first year. This license fee will increase by 4% per year in each subsequent year.

The new technology is expected to reduce operating costs by K5.80 per unit in current price terms. This reduction in operating costs is before taking account of expected inflation of 5% per year. Forecast production volumes over the life of the new technology are expected to be as follows:

Year	1	2	3	4
Production (units per year)	60,000	75,000	95,000	80,000

If BlackSwan Ltd ***bought*** the new technology, it would finance the purchase through a four-year loan paying interest at an annual before-tax rate of 8.6% per year.

Alternatively, BlackSwan Ltd could ***lease*** the new technology. The company would pay four annual lease rentals of K380,000 per year, payable in advance at the start of each year. The annual lease rentals include the cost of the license fee.

If BlackSwan Ltd buys the new technology it can claim capital allowances on the investment on a 25% reducing balance basis. The company pays taxation one (1) year in arrears at an annual rate of 30%. BlackSwan Ltd has an after-tax weighted average cost of capital of 11% per year.

Required:

(a) Based on financing cash flows only, calculate and determine whether BlackSwan Ltd should ***lease*** or ***buy*** the new technology. (14 marks)

(b) Taking into account inflation (nominal terms approach), calculate the net present value of buying the new technology and advise whether BlackSwan Ltd should undertake the proposed investment. (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>

Baba Ltd is a Zambian medium-sized company whose ordinary shares are all owned by the members of one family who are Christians. Zambia is predominately a Christian nation by law and this has influenced the structure of some businesses particularly those that are family owned. Baba Ltd's vision is to "grow the business across borders using Christian values". Baba Ltd has grown in Zambia over the years and has recently begun exporting to a European country. The prospect of increased exports to the European country means that the Company needs to expand its existing business operations in order to be able to meet future orders and double its current operating profit. All of the family members are in favour of the planned expansion, but none are in a position to provide additional finance required. The company is seeking to raise external finance of approximately K20 million.

Below is an extract of the Statement of Profit or Loss and Statement of Financial position for Baba Ltd as at 31 December 2021;

Statement of Profit or Loss Extract	
	K'**000**
Gross profit	14,100
Operating profit	7,050
Interest	1,000
Tax@30%	1,815
Profit for the year	4,235
Retained Profit	**1,694**
Statement of Financial Position Extract	
	K'**000**
Property, Plant and Equipment	35,500
Total current assets	9,500

Total Assets	**45,000**
Non-Current liabilities	
10% Shareholder loan	10,000
Equity:	
Share Capital (K1)	150
Retained Earnings	12,500
Other Reserves	15,750
Total Current liabilities	6,600
Total Equity and Liabilities	**45,000**

The owners of Baba Ltd have approached their Bank for financing. The Bank has indicated that it is able to finance the company at an interest rate of 27.5% fixed rate for five (5) years as the company is an SME and viewed as high risk in line with the Bank regulations.

During a business conference for SMEs in Zambia, one of the presenters on "diversity in financing" spoke on "mudaraba contract" and how this can help SMEs to finance their businesses. At the same conference, the owners of Baba Ltd were approached by an Islamic Bank that was willing to invest in the Company based on Islamic finance principles.

Required:

(a) Discuss how Islamic finance could be used to finance the planned business expansion. (5 marks)

(b) Explain two (2) ethical implications for Baba Ltd using Islamic finance to finance the business expansion. (2 marks)

(c) Using the 31 December 2021 Financial Statements, calculate the level of gearing (Debt to Equity) and the distributed profits assuming the dividend payout ratio is maintained and financing secured, for each two (2) financing options. (8 marks)

(d) Evaluate the financing options available to Baba Ltd and recommend the appropriate financing option for the expansion. (5 marks)

[Total: 20 Marks]

QUESTION THREE

The Directors of EVE Plc have approached the Directors of HUL Ltd with a view to making a takeover bid for HUL Ltd. One (1) of the conditions of the bid is the retention of the current management team of HUL Ltd. This is against the background that the management of HUL Ltd has vital knowledge of the specialised techniques required to produce its product range. Although the directors of HUL Ltd have no objection to the bid, both parties are concerned that the deal may be referred to the Competition Commission. The Commission regulates competition in the country and approval may depend on conditions that could make the takeover less attractive. The two (2) companies are located in different parts of the country far apart from each other. HUL Ltd is located in the remote part of the country while EVE Plc in the capital city where the property rent is expensive.

The Directors of HUL Ltd are keen to value the company for the purposes of negotiating this potential from EVE Plc and plan to use the Calculated Intangible Value (CIV) method to value the intangible element. In the previous year, HUL Ltd made an operating profit of K141.3 million on an asset base of K311 million. Earnings are predicted to grow at 4.1% over the next few years, and the company WACC is 10%. ATM Ltd has been identified as a suitable competitor for benchmarking purposes which made an operating profit of K298 million on assets employed in the business of K1,567 million. The corporation tax payable is 30% per year.

Required:

(a) Discuss the potential problems of merging the management structure of EVE Plc and HUL Ltd and how these could be minimised. (10 marks)

(b) Estimate the value of HUL Ltd using the CIV method. (10 marks)

[Total: 20 Marks]

QUESTION FOUR

MED Plc is an IT Zambian company due to receive $400,000 in three (3) months' time from a foreign customer. MED Plc is a subsidiary of UNZ Plc a multinational company. UNZ Plc has twenty (20) subsidiaries operating across the globe. The Financial Manager thinks that the company is exposed to foreign currency risk and it should hedge the risk using money markets. The Financial Manager has proceeded to obtain the following information:

Spot:	ZMW/$ 16.975 – 16.898	
Current 3 month interest rates:	US prime	5.2% – 5.8%
	Zambia	15.5% – 17.7%

Despite the suggestion by the Financial Manager, the Chief Financial Officer (CFO) believes that the forward contracts could be considered before making the decision on the hedging method.

Required:

(a) Show how MED Plc can use the money markets to hedge the risk. (8 marks)

(b) Discuss the merits and demerits of forward contracts as a hedging method by MED Plc. (8 marks)

(c) Estimate the forward exchange rate in three (3) months' time. (4 marks)

[Total: 20 Marks]

<u>QUESTION FIVE</u>

Globally, some countries have organised themselves into trading blocs so that they can trade freely amongst themselves. For instance, Southern African Development Community (SADC) is a regional trading bloc for southern African countries. The goal of SADC is to further regional socio-economic cooperation and integration as well as political and security cooperation among sixteen (16) countries in southern Africa. In practice, however, there exist many barriers to free trade because governments wish to protect home industries against foreign competition. Protectionism would in effect be intended to hinder the operation of the law of comparative advantage.

Required:

(a) Discuss the arguments for and against protectionism in international trade. (12 marks)

(b) Explain how the law of comparative advantage operates in international trade. (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

$$s_p = \sqrt{w_a^2 s_a^2 + w_b^2 s_b^2 + 2 w_a w_b r_{ab} s_a s_b}$$

The Capital Asset Pricing Model

$$E(r_i) = R_f + \beta_i (E(r_m) - R_f)$$

The asset beta formula

$$\beta_a = \left[\frac{V_e}{(V_e + V_d(1 - T))}\beta_e\right] + \left[\frac{V_d(1 - T)}{(V_e + V_d(1 - T))}\beta_d\right]$$

The Growth Model

$$P_o = \frac{D_o(1 + g)}{(r_e - g)}$$

Gordon's growth approximation

$$g = br_e$$

The weighted average cost of capital

$$WACC = \left[\frac{V_e}{V_e + V_d}\right]k_e + \left[\frac{V_d}{V_e + V_d}\right]k_d(1 - T)$$

The Fisher formula

$$(1 + i) = (1 + r)(1 + h)$$

Purchasing power parity and interest rate parity

$$S_1 = S_0 \times \frac{(1 + h_c)}{(1 + h_b)} \qquad F_0 = S_0 \times \frac{(1 + i_c)}{(1 + i_b)}$$

Modified Internal Rate of Return

$$MIRR = \left[\frac{PV_R}{PV_I}\right]^{\frac{1}{n}}\left(1 + r_e\right) - 1$$

The Black-Scholes option pricing model

$$c = P_a N(d_1) - P_e N(d_2) e^{-rt}$$

Where:

$$d_1 = \frac{\ln(P_a / P_e) + (r + 0.5s^2)t}{s\sqrt{t}}$$

$$d_2 = d_1 - s\sqrt{t}$$

The Put Call Parity relationship

$$p = c - P_a + P_e e^{-rt}$$

Present Value Table

Present value of 1 i.e. $(1 + r)^{-n}$

Where r = discount rate
n = number of periods until payment

Discount rate (r)

Periods (n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0·990	0·980	0·971	0·962	0·952	0·943	0·935	0·926	0·917	0·909	1
2	0·980	0·961	0·943	0·925	0·907	0·890	0·873	0·857	0·842	0·826	2
3	0·971	0·942	0·915	0·889	0·864	0·840	0·816	0·794	0·772	0·751	3
4	0·961	0·924	0·888	0·855	0·823	0·792	0·763	0·735	0·708	0·683	4
5	0·951	0·906	0·863	0·822	0·784	0·747	0·713	0·681	0·650	0·621	5
6	0·942	0·888	0·837	0·790	0·746	0·705	0·666	0·630	0·596	0·564	6
7	0·933	0·871	0·813	0·760	0·711	0·665	0·623	0·583	0·547	0·513	7
8	0·923	0·853	0·789	0·731	0·677	0·627	0·582	0·540	0·502	0·467	8
9	0·941	0·837	0·766	0·703	0·645	0·592	0·544	0·500	0·460	0·424	9
10	0·905	0·820	0·744	0·676	0·614	0·558	0·508	0·463	0·422	0·386	10
11	0·896	0·804	0·722	0·650	0·585	0·527	0·475	0·429	0·388	0·305	11
12	0·887	0·788	0·701	0·625	0·557	0·497	0·444	0·397	0·356	0·319	12
13	0·879	0·773	0·681	0·601	0·530	0·469	0·415	0·368	0·326	0·290	13
14	0·870	0·758	0·661	0·577	0·505	0·442	0·388	0·340	0·299	0·263	14
15	0·861	0·743	0·642	0·555	0·481	0·417	0·362	0·315	0·275	0·239	15

(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0·901	0·893	0·885	0·877	0·870	0·862	0·855	0·847	0·840	0·833	1
2	0·812	0·797	0·783	0·769	0·756	0·743	0·731	0·718	0·706	0·694	2
3	0·731	0·712	0·693	0·675	0·658	0·641	0·624	0·609	0·593	0·579	3
4	0·659	0·636	0·613	0·592	0·572	0·552	0·534	0·516	0·499	0·482	4
5	0·593	0·567	0·543	0·519	0·497	0·476	0·456	0·437	0·419	0·402	5
6	0·535	0·507	0·480	0·456	0·432	0·410	0·390	0·370	0·352	0·335	6
7	0·482	0·452	0·425	0·400	0·376	0·354	0·333	0·314	0·296	0·279	7
8	0·434	0·404	0·376	0·351	0·327	0·305	0·285	0·266	0·249	0·233	8
9	0·391	0·361	0·333	0·308	0·284	0·263	0·243	0·225	0·209	0·194	9
10	0·352	0·322	0·295	0·270	0·247	0·227	0·208	0·191	0·176	0·162	10
11	0·317	0·287	0·261	0·237	0·215	0·195	0·178	0·162	0·148	0·135	11
12	0·286	0·257	0·231	0·208	0·187	0·168	0·152	0·137	0·124	0·112	12
13	0·258	0·229	0·204	0·182	0·163	0·145	0·130	0·116	0·104	0·093	13
14	0·232	0·205	0·181	0·160	0·141	0·125	0·111	0·099	0·088	0·078	14
15	0·209	0·183	0·160	0·140	0·123	0·108	0·095	0·084	0·074	0·065	15

Annuity Table

Present value of an annuity of 1 i.e. $\frac{1 - (1 + r)^{-n}}{r}$

Where r = discount rate
n = number of periods

Discount rate (r)

Periods (n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0·990	0·980	0·971	0·962	0·952	0·943	0·935	0·926	0·917	0·909	1
2	1·970	1·942	1·913	1·886	1·859	1·833	1·808	1·783	1·759	1·736	2
3	2·941	2·884	2·829	2·775	2·723	2·673	2·624	2·577	2·531	2·487	3
4	3·902	3·808	3·717	3·630	3·546	3·465	3·387	3·312	3·240	3·170	4
5	4·853	4·713	4·580	4·452	4·329	4·212	4·100	3·993	3·890	3·791	5
6	5·795	5·601	5·417	5·242	5·076	4·917	4·767	4·623	4·486	4·355	6
7	6·728	6·472	6·230	6·002	5·786	5·582	5·389	5·206	5·033	4·868	7
8	7·652	7·325	7·020	6·733	6·463	6·210	5·971	5·747	5·535	5·335	8
9	8·566	8·162	7·786	7·435	7·108	6·802	6·515	6·247	5·995	5·759	9
10	9·471	8·983	8·530	8·111	7·722	7·360	7·024	6·710	6·418	6·145	10
11	10·37	9·787	9·253	8·760	8·306	7·887	7·499	7·139	6·805	6·495	11
12	11·26	10·58	9·954	9·385	8·863	8·384	7·943	7·536	7·161	6·814	12
13	12·13	11·35	10·63	9·986	9·394	8·853	8·358	7·904	7·487	7·103	13
14	13·00	12·11	11·30	10·56	9·899	9·295	8·745	8·244	7·786	7·367	14
15	13·87	12·85	11·94	11·12	10·38	9·712	9·108	8·559	8·061	7·606	15

(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0·901	0·893	0·885	0·877	0·870	0·862	0·855	0·847	0·840	0·833	1
2	1·713	1·690	1·668	1·647	1·626	1·605	1·585	1·566	1·547	1·528	2
3	2·444	2·402	2·361	2·322	2·283	2·246	2·210	2·174	2·140	2·106	3
4	3·102	3·037	2·974	2·914	2·855	2·798	2·743	2·690	2·639	2·589	4
5	3·696	3·605	3·517	3·433	3·352	3·274	3·199	3·127	3·058	2·991	5
6	4·231	4·111	3·998	3·889	3·784	3·685	3·589	3·498	3·410	3·326	6
7	4·712	4·564	4·423	4·288	4·160	4·039	3·922	3·812	3·706	3·605	7
8	5·146	4·968	4·799	4·639	4·487	4·344	4·207	4·078	3·954	3·837	8
9	5·537	5·328	5·132	4·946	4·772	4·607	4·451	4·303	4·163	4·031	9
10	5·889	5·650	5·426	5·216	5·019	4·833	4·659	4·494	4·339	4·192	10
11	6·207	5·938	5·687	5·453	5·234	5·029	4·836	4·656	4·486	4·327	11
12	6·492	6·194	5·918	5·660	5·421	5·197	4·988	4·793	4·611	4·439	12
13	6·750	6·424	6·122	5·842	5·583	5·342	5·118	4·910	4·715	4·533	13
14	6·982	6·628	6·302	6·002	5·724	5·468	5·229	5·008	4·802	4·611	14
15	7·191	6·811	6·462	6·142	5·847	5·575	5·324	5·092	4·876	4·675	15

Standard normal distribution table

	0·00	0·01	0·02	0·03	0·04	0·05	0·06	0·07	0·08	0·09
0·0	0·0000	0·0040	0·0080	0·0120	0·0160	0·0199	0·0239	0·0279	0·0319	0·0359
0·1	0·0398	0·0438	0·0478	0·0517	0·0557	0·0596	0·0636	0·0675	0·0714	0·0753
0·2	0·0793	0·0832	0·0871	0·0910	0·0948	0·0987	0·1026	0·1064	0·1103	0·1141
0·3	0·1179	0·1217	0·1255	0·1293	0·1331	0·1368	0·1406	0·1443	0·1480	0·1517
0·4	0·1554	0·1591	0·1628	0·1664	0·1700	0·1736	0·1772	0·1808	0·1844	0·1879
0·5	0·1915	0·1950	0·1985	0·2019	0·2054	0·2088	0·2123	0·2157	0·2190	0·2224
0·6	0·2257	0·2291	0·2324	0·2357	0·2389	0·2422	0·2454	0·2486	0·2517	0·2549
0·7	0·2580	0·2611	0·2642	0·2673	0·2704	0·2734	0·2764	0·2794	0·2823	0·2852
0·8	0·2881	0·2910	0·2939	0·2967	0·2995	0·3023	0·3051	0·3078	0·3106	0·3133
0·9	0·3159	0·3186	0·3212	0·3238	0·3264	0·3289	0·3315	0·3340	0·3365	0·3389
1·0	0·3413	0·3438	0·3461	0·3485	0·3508	0·3531	0·3554	0·3577	0·3599	0·3621
1·1	0·3643	0·3665	0·3686	0·3708	0·3729	0·3749	0·3770	0·3790	0·3810	0·3830
1·2	0·3849	0·3869	0·3888	0·3907	0·3925	0·3944	0·3962	0·3980	0·3997	0·4015
1·3	0·4032	0·4049	0·4066	0·4082	0·4099	0·4115	0·4131	0·4147	0·4162	0·4177
1·4	0·4192	0·4207	0·4222	0·4236	0·4251	0·4265	0·4279	0·4292	0·4306	0·4319
1·5	0·4332	0·4345	0·4357	0·4370	0·4382	0·4394	0·4406	0·4418	0·4429	0·4441
1·6	0·4452	0·4463	0·4474	0·4484	0·4495	0·4505	0·4515	0·4525	0·4535	0·4545
1·7	0·4554	0·4564	0·4573	0·4582	0·4591	0·4599	0·4608	0·4616	0·4625	0·4633
1·8	0·4641	0·4649	0·4656	0·4664	0·4671	0·4678	0·4686	0·4693	0·4699	0·4706
1·9	0·4713	0·4719	0·4726	0·4732	0·4738	0·4744	0·4750	0·4756	0·4761	0·4767
2·0	0·4772	0·4778	0·4783	0·4788	0·4793	0·4798	0·4803	0·4808	0·4812	0·4817
2·1	0·4821	0·4826	0·4830	0·4834	0·4838	0·4842	0·4846	0·4850	0·4854	0·4857
2·2	0·4861	0·4864	0·4868	0·4871	0·4875	0·4878	0·4881	0·4884	0·4887	0·4890
2·3	0·4893	0·4896	0·4898	0·4901	0·4904	0·4906	0·4909	0·4911	0·4913	0·4916
2·4	0·4918	0·4920	0·4922	0·4925	0·4927	0·4929	0·4931	0·4932	0·4934	0·4936
2·5	0·4938	0·4940	0·4941	0·4943	0·4945	0·4946	0·4948	0·4949	0·4951	0·4952
2·6	0·4953	0·4955	0·4956	0·4957	0·4959	0·4960	0·4961	0·4962	0·4963	0·4964
2·7	0·4965	0·4966	0·4967	0·4968	0·4969	0·4970	0·4971	0·4972	0·4973	0·4974
2·8	0·4974	0·4975	0·4976	0·4977	0·4977	0·4978	0·4979	0·4979	0·4980	0·4981
2·9	0·4981	0·4982	0·4982	0·4983	0·4984	0·4984	0·4985	0·4985	0·4986	0·4986
3·0	0·4987	0·4987	0·4987	0·4988	0·4988	0·4989	0·4989	0·4989	0·4990	0·4990

This table can be used to calculate $N(d)$, the cumulative normal distribution functions needed for the Black-Scholes model of option pricing. If $d_i > 0$, add 0·5 to the relevant number above. If $d_i < 0$, subtract the relevant number above from 0·5.

CA 3.6: ADVANCED FINANCIAL MANAGEMENT SUGGESTED SOLUTION

SOLUTION ONE

a) The credit crunch has led to unwillingness by the banks to lend, particularly to some industries adversely impacted by the COVID-19 pandemic such as airlines, tourism and capital intensive industries such as construction related companies, resulting in a drain in the liquidity across the capital markets. However, Interest rates are now low as central banks attempt to stimulate their economies. The business of banks is to earn profits by borrowing short and lending long and they are still willing to lend to highly profitable and low risk corporate customers, at competitive interest rates, given low rates in Europe.

The banks will be concerned about the following:

i) The risk of default: although there has been a slackening of demand for the company's products our relatively high credit rating would still make us an attractive prospect for lenders.

ii) They will need to undertake a credit risk assessment which will include a thorough examination of our asset strength, existing capitalization, operating strength and gearing. An important measure will be the firm's current cash flow/debt obligations ratio.

iii) Recovery: the assessment of our asset strength will form a part of their assessment of the potential recoverability of the debt in the event of default.

(b) **Syndication** is where a group of banks combine with one bank taking the lead in the arrangement. Syndication allows banks to offer much larger loans in combination than would be feasible individually, and given the range of banks involved can tailor loans (perhaps across different currencies) to more exactly match our requirements. The management of the syndicate lies with the arranging bank but the effective cost will be somewhat higher than with a conventional loan but usually much lower than the cost of raising the necessary finance through a bond issue.

A bond issue is where the debt is securitized and floated onto the capital market normally with a fixed interest coupon and a set redemption date. Initial set up costs can be high especially if the issue is underwritten. A loan of the size envisaged is towards the low end of what would normally be raised through this means. Some bond issues can be syndicated in that a number of borrowers of similar risk are combined by the investment bank chosen to manage the issue.

The advantage of syndication is that it reduces the costs of issue. However, it may be that the best offer would entail accepting a variable rate based on LIBOR which would have to be swapped out if we wished to minimize interest rate risk.

(c) In assessing this capital investment we have to make some assumptions about the immediate future in terms of the general economic conditions and to what extent we have a delay option on the project concerned. Where there is a positive delay option then from a financial perspective the best advice may be to delay the investment depending on the likely actions by the competitors and how markets for the products develop. Where there are significant competitive reasons for proceeding we should only proceed if the net present value of the project is worthwhile. Given the magnitudes of the uncertainties involved under current economic conditions to proceed should only be made when we are sure that we have estimated the potential magnitude of the risks and taken them into account in our analysis.

1) (a) After-tax cost of borrowing = 8.6 x (1 – 0.3) = 6% per year

Evaluation of leasing

Year	Cash flow	Amount (K)	6% Discount factors	Present Value (K)
0–3	Lease rentals	(380,000)	(1.000 + 2.673) = 3.673	(1,395,740)
2–5	Tax savings	114,000	(4.212 – 0.943) = 3.269	372,666
				(1,023,074)

Present value of cost of leasing = **<u>K1,023,074</u>**

<u>Evaluation of borrowing to buy</u>

Year	Capital	License fee	Tax Benefit	Net Cash Flow	6% DF	Present Value
0	(1,000,000)			(1,000,000)	1.000	(1,000,000)
1		(104,000)		(104,000)	0.943	(98,072)
2		(108,160)	106,200	(1,960)	0.890	(1,744)
3		(112,486)	88,698	(23,788)	0.840	(19,982)
4	100,000	(116,986)	75,934	58,948	0.792	46,687
5			131,659	131,659	0.747	98,349
						(974,762)

Present value of cost of borrowing to buy = **<u>K974,762</u>**

Workings

Year	Capital Allowances	Tax Benefits	License fee tax benefits	Total
2	[1,000,000 x 0.25] = 250,000	75,000	31,200	106,200
3	[750,000 x 0.25] = 187,500	56,250	32,448	88,698
4	[562,500 x 0.25] =140,625	42,188	33,746	75,934
5	[421,875 – 100,000] = 321,875	96,563	35,096	131,659

BlackSwan Ltd should buy the new technology, since the present cost of borrowing to buy is lower than the present cost of leasing.

2) (b) Nominal terms net present value analysis

Year	1	2	3	4	5	**Total**
Cost savings	365,400	479,250	637,450	564,000		
Tax liabilities	-	(109,620)	(143,775)	(191,235)	(169,200)	
Net cash flow	365,400	369,630	493,675	372,765	(169,200)	
Discount at 11%	0.901	0.812	0.731	0.659	0.593	
Present values	329,225	300,140	360,876	245,652	(100,336)	**1,135,557**

Present value of benefits	1,135,557
Present cost of financing	(974,762)
Net present value	**160,795**

Workings

Year	1	2	3	4
Operating cost saving (K/unit)	6.09	6.39	6.71	7.05
Production (units/year)	60,000	75,000	95,000	80,000
Operating cost savings (K/year)	365,400	479,250	637,450	564,000
Tax liabilities at 30% (K/year	109,620	143,775	191,235	169,200

The investment in new technology is acceptable on financial grounds, as it has a positive net present value of **K160, 795**.

SOLUTION TWO

Part (a)

One central principle of Islamic finance is that making money out of money is not acceptable, i.e. interest is prohibited. A *mudaraba* contract, in Islamic finance, is a partnership between one party that brings finance or capital into the contract and another party that brings business expertise and personal effort into the contract. The first party is called the owner of capital, while the second party is called the agent, who runs or manages the business. The *mudaraba* contract specifies how profit from the business is shared proportionately between the two parties. Any loss, however, is borne by the owner of capital, and not by the agent managing the business. It can therefore be seen that three key characteristics of a *mudaraba* contract are that no interest is paid, that profits are shared, and that losses are not shared.

If Baba Ltd were to decide to seek Islamic finance for the planned business expansion and if the company were to enter into a *mudaraba* contract, the company would therefore be entering into a partnership as an agent, managing the business and sharing profits with the Islamic bank that provided the finance and which was acting as the owner of capital. The Islamic bank would not interfere in the management of the business and this is what would be expected if Baba Ltd were to finance the business expansion using debt such as a bank loan. However, while interest on debt is likely to be at a fixed rate, the *mudaraba* contract would require a sharing of profit in the agreed proportions.

Part (b)

Islamic finance derives its key strengths from its inherent underlying principles including the prohibitions against unethical or unlawful conduct, and the goals of social justice that are key features of the "embedded governance" that characterize it. There is a duty to observe high ethical standards and a corresponding requirement to take into account the wider impact of the transactions financed. This view of ethical conduct, and of wider accountability, as envisioned by Islamic finance thus stands somewhat removed from the notion of a firm that needs only to maximize profits for its shareholders without regard to the social or other consequences of its actions. In view of the above, Baba Ltd would have to consider among others the following,

1. The key underlying principles in Islamic beliefs particularly those that would be different with the owners' Christian beliefs; and

2. The need for wider compliance and reporting costs to confirm to the Islamic requirements that would be required when financing is obtained. This may result in the questioning of the Baba Ltd mission statement which is limited to the Christian values.

Part c)
Impact of the undertaking the expansion project using the two financing options on the Income Statement for 31st December 2021

Key considerations;
1. Operating profit has been doubled post expansion;

2. Islamic financing has no interest payable but investor shall receive a 50% profit share; and
3. Only the changes in dividend and retained profits shall impact equity in this situation and there are no accruals.

Impact of undertaking the expansion project using the two financing options on the Income Statement for 31st December 2021

Details	Current status	Using Islamic financing	Using Commercial Debt
	ZMW'000	ZMW'000	ZMW'000
Operating Profit	7,050	14,100	14,100
Interest	(1,000)	(1,000)	(6,500)
Profit before tax	6,050	13,100	7,600
Tax@30%	(1,815)	(3,930)	(2,280)
Profit for the year	4,235	9,170	5,320
Dividend@60% (profit distributed)	(2,541)	(5,502)	(3,192)
Retained profit	1,694	3,668	2,128

Impact of undertaking the expansion project using the two financing options on the Statement of Financial Position for 31st December 2021

Details	Using Islamic financing	Using Commercial Debt
	ZMW'000	ZMW'000
Current total equity	28,400	28,400
Less current retained profit included in equity	(1,694)	(1,694)
Add revised retained profit	3,668	2,128
Revised total equity post expansion	30,374	28,834
Total debt including shareholder loan	30,000	30,000
Gearing ratio (Debt/Equity)	98.8%	104%

Part d)

The evaluation of the financing options has been conducted by considering Suitability, Acceptability and Feasibility.

Suitability
Baba Ltd's vision states that to "grow the business across borders using Christian values". This might not be in line with non-Christian ethos such as Islam. Therefore, the use of Islamic financing might not be suitable. The use of commercial debt implies a 'higher risk' perception placed on Baba Ltd by the Bank a situation that has led to the high cost of borrowing.

Acceptability
The owners of Baba Ltd are Christians and therefore might not accept non-Christian beliefs in the operations of the company. However, there is also the consideration of some Islamic beliefs that

do not contradict Christian values, and as Christians the owners could accept these, which would require a review of the vision of the company. For example "to grow the business across borders in a way that does not conflict with Christian values".

Feasibility

The undertaking of the project doubles the operating profit which is a 100% increase. An investment that increases profit by 100% is worth considering. Further, the use of Islamic financing is cheaper than commercial debt as no interest is payable. However, there is a loss on tax savings on interest but the benefits are more than the costs as shown in the higher distributed profits and retained profits. The current owner and the new partners would share profits 50:50, therefore from the current distributed profit of ZMW2,541,000 the company shall increase this to ZMW5,502,000 to be shared. The gearing level is highest using commercial debt at 104%, implying the Company would have more debt than equity.

Therefore, with a review of the company's vision to consider other aspects of operations that would not conflict with the Christian values, it is recommended that Baba Ltd finances the expansion project using Islamic financing. However, the contract signed should not include terms that would conflict the Christian values.

SOLUTION THREE

(a) **Potential problems in merging management structures**

Retention of HUL Ltd.'s current management
HUL Ltd is a small entity with much of its value derived from the intellectual capital of its managers who have vital knowledge of specialist manufacturing techniques. The takeover will enable them to realise their capital gains from their shares in HUL Ltd and they may be tempted to leave the company as soon as possible. A condition of the bid is the retention of the management team of HUL Ltd but they will still need to be managed carefully to ensure their co-operation and future contribution.

Location of entities
The two entities are at opposite ends of the country far apart from each other. Therefore, travelling between the two sites is likely to be time consuming and unpopular with employees. Long distance management can lead to poor communication and control.
It will not be easy to come up with an acceptable location for the merged entity. The management of EVE Plc may be unwilling to re-locate to a remote part of the country. Property in the capital city is expensive and/or limited in supply so a move to EVE Plc's location could be equally unacceptable.

Possible solutions

Staff retention
The current management of HUL Ltd need to be looked after by ensuring clear communication of goals, flexibility in approach and service contracts tying them to the company for a certain time. The service contracts must be attractive in the form of increased salaries and benefits. In the longer term, their knowledge must be captured perhaps using a form of knowledge management system.

Relocation
Research will need to be undertaken into which key employees would be prepared to re-locate. Again, communication is essential to ensure that worried employees do not become de-motivated and leave the organisation. Reducing uncertainty as quickly as possible to preserve morale. The organisation also needs to examine which operations could be centralised and the optimum cost effective location.

(b)

(1) ATM Ltd is currently earning a return of K298m/1,567m = 19.02%

(2) The value spread for HUL Ltd is:

	K'million
Company operating profit	141.30
Less: Appropriate ROA × Company asset base (19.02% × 311)	59.15
Value spread	82.15

(3) Calculate the CIV:

- Find the post-tax value spread: K82.15 × (1- 0.3) = 57.51

- Find the predicted post tax value spread at T_1: K57.51 × (1 + 0.041) = K59.86
- Find the CIV by calculating the PV of the T1 earnings (assuming they will continue to grow at the same rate in perpetuity). Since we are valuing a NOPAT earnings stream our formula is E1 / WACC.

  CIV = 59.86 / 0.10 = K598.6m

(4) The overall value of the firm = CIV + asset base

Firm value = K598.6m + K311m = K909.6m.

SOLUTION FOUR

(a)
Borrow $’s: 400,000 ÷ 1.0145 = $394,282.90
Convert at spot $394,282.90 x16.975 = ZMW6, 692,952.23
Invest ZMW’s 6,692,952.23 × 1.03875 = ZMW6, 952,304.13

MED Plc has borrowed against the on strength of the future receipt and will pay it off once the foreign customer settles the account in three months’ time. Since this approach involves converting the foreign currency at the current spot, it therefore makes future changes in the exchange rate irrelevant. Regardless of the exchange rate movement, MED Plc will realise ZMW6, 952,304.13 which is equivalent to $400,000 in three months’ time.

(b) Advantages of forward contract

(i) Certainty of cash flows

The forward contract removes the risk that adverse exchange rate movements will affect the amount in ZMW that MED Plc receives. MED can budget for receiving a known amount.

(ii) Over-the counter
The forward contract will not be subject to the requirements and the cost of a trading exchange.

(iii) Tailored to the transaction
The forward contract can be for the exact amount of the transaction between MED and foreign customer $400,000.

(iv) Settlement date
The contract can be settled on the same day as the transaction.

Disadvantages of forward contract

(i) Arrangement costs
It may be difficult and take time for MED Plc to arrange a contract. The amount is relatively small for a forward contract, and so would not interest some sellers of contracts. Also MED's lack of history in the forward market may deter some sellers. The time and costs may outweigh the benefits of the contract.

(ii) Default by foreign customer
If the foreign customer fails to settle on the agreed date, MED Plc will still be liable on the forward contract. MED Plc will have to buy dollars at the spot rate, and sell the dollars to the bank at the contracted rate.

(iii) Postponement of settlement
Similarly if payment by the foreign customer is postponed because of business problems, the forward contract will still have to be settled on the agreed date.

(iv) Favourable movements in spot rates

MED Plc is committed to settling the forward contract as the contracted rate. If the ZMW weakens against the US dollar, MED Plc cannot take advantage of the more favourable spot rate.

c) Using interest rate parity, Zambian Kwacha is the numerator and dollar is the denominator. So the expected future exchange rate ZMW/$ is given by:

$$\text{Forward rate} = \text{spot rate} \times \frac{1 + I_{ZMW}}{1 + I_{US}}$$

$$= 16.9365 \times \frac{1+0.04425}{1+0.0145}$$

$$=17.4332$$

SOLUTION FIVE

(a)

Arguments against protection

Arguments against protection are as follows:

(i) Reduced international trade

Because protectionist measures taken by one country will almost inevitably provoke retaliation by others, protection will reduce the volume of international trade. This means that the following benefits of international trade will be reduced.

1) Specialisation
2) Greater competition, and so greater efficiency amongst producers
3) The advantages of economies of scale amongst producers who need world markets to achieve their economies and so produce at lower costs

(ii) Retaliation

Obviously it is to a nation's advantage if it can apply protectionist measures while other nations do not.

But because of retaliation by other countries, protectionist measures to reverse a balance of trade deficit are unlikely to succeed. Imports might be reduced, but so too would exports.

(iii) Effect on economic growth

It is generally argued that widespread protection will damage the prospects for economic growth amongst the countries of the world, and protectionist measures ought to be restricted to 'special cases' which might be discussed and negotiated with other countries.

(iv) Political consequences

Although from a nation's own point of view, protection may improve its position, protectionism leads to a worse outcome for all. Protection also creates political ill-will amongst countries of the world and so there are political disadvantages in a policy of protection.

Arguments in favour of protection

(i) Imports of cheap goods

Measures can be taken against imports of cheap goods that compete with higher priced domestically produced goods, and so preserve output and employment in domestic industries. In the UK, advocates of protection have argued that UK industries are declining because of competition from overseas, especially the Far East, and the advantages of more employment at a reasonably high wage for UK labour are greater than the disadvantages that protectionist measures would bring.

(ii) Dumping

Measures might be necessary to counter 'dumping' of surplus production by other countries at an uneconomically low price. Although dumping has short-term benefits for the countries receiving the cheap goods, the longer term consequences would be a reduction in domestic output and employment, even when domestic industries in the longer term might be more efficient.

(iii) Retaliation
This is why protection tends to spiral once it has begun. Any country that does not take protectionist measures when other countries are doing so is likely to find that it suffers all of the disadvantages and none of the advantages of protection.
Infant industries
Protectionism can protect a country's 'infant industries' that have not yet developed to the size where they can compete in international markets. Less developed countries in particular might need to protect industries against competition from advanced or developing countries.

(iv) Declining industries
Without protection, the industries might collapse and there would be severe problems of sudden mass unemployment amongst workers in the industry.

(v) Reduction in balance of trade deficit
However, because of retaliation by other countries, the success of such measures by one country would depend on the demand by other countries for its exports being inelastic with regard to price and its demand for imports being fairly elastic.

(b) **Comparative Advantage**

Comparative advantage is the ability of a country to produce a particular good or service at a lower opportunity cost than its trading partners. A comparative advantage gives a company the ability to sell goods and services at a lower price than its competitors and realize stronger sales margins. According to the classical theory of comparative advantage when a country specializes in some products, it may not produce other products, so trade between countries is essential. Comparative advantages allow firms to penetrate foreign markets. Specialization by countries can increase production efficiency.
The law of **comparative advantage** does apply in practice, and countries do specialise in the production of certain goods. For instance, countries such as Japan and the United States, have a technology advantage, while other countries, such as Jamaica, Mexico, and South Korea, have an advantage in the cost of basic labor. Since these advantages cannot be easily transported, countries tend to use their advantages to specialize in the production of goods that can be produced with relative efficiency. This explains why countries such as Japan and the United States are large producers of computer components, while countries such as Jamaica and Mexico are large producers of agricultural and handmade goods.

However, there are certain limitations or restrictions on how it operates.
(1) Free trade does not always exist. Some countries take action to protect domestic industries and discourage imports. This means that a country might produce goods in which it does not have a comparative advantage.
(2) Transport costs (assumed to be nil in the examples above) can be very high in international trade so that it is cheaper to produce goods in the home country rather than to import them.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA 3.7: PUBLIC SECTOR AUDITS AND ASSURANCE

FRIDAY 24 MARCH 2023

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

INSTRUCTIONS TO CANDIDATES

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

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

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

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

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

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

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

8. Present legible and tidy work.

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

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

SECTION A

This question is compulsory and must be attempted.

QUESTION ONE

You work for the Office of the Auditor General (OAG) as an Audit Senior. You are under the Directorate that audits local authorities.

You are planning the audit of the Lusaka City Council (LCC) and you wish to perform compliance and Information Technology (IT) audits.

The Operations of the Lusaka City Council (LCC) are under the supervision of the Town Clerk whose duties are clearly spelt out in the local government guidelines. There is a Mayor elected from amongst the councilors and this position is largely ceremonial and has specific duties as guided by the local government regulations. The recently elected mayor is hardworking and wants to make a difference in the services offered by the Council. He has taken over some of the responsibilities of the Town Clerk who is the Controlling Officer and among other functions that he is involving himself in is the collection of revenue from the markets. He has insisted that the Market Managers should report to him and he decides on how much of the daily collections should be deposited in the Council bank account. This action has resulted in a dispute with the Town Clerk and some Councilors who do not support the actions of the Mayor.

The Lusaka City Council (LCC) received K5 million from the Constituent Development Funds for use in the procurement of ten (10) waste disposal trucks and recurrent expenditure for the department responsible for waste disposal in the current year.

The use of the K5 million is subject to the conditions contained in the agreement with the Constituency Development Committee. It is hoped that with the procurement of this fleet of trucks, there will be significant improvement in waste disposal in the city and over a period of three (3) years, the Council will take over the disposal of waste from contractors who have been doing this for many years. The phasing out of contractors will be in stages and will begin by giving contractors selected parts of the city and 60% of the waste will be collected by the City Council.

The following conditions were extracted from the agreement with the Constituency Development Committee and the City Council (LCC):

1. The same make of trucks should be procured and should not be less than 30 tonnne trucks.
2. The procurement should be in line with the Public Procurement system and should be by way of tender and competitive bidding.
3. The Council should take over waste disposal in the Central Business District of the city and should only outsource when the trucks are off service for maintenance.
4. The fleet of trucks should be serviced every 5,000 kilometers and the service should be carried out by reputable garages.

You have been assigned to lead a team of auditors to carry out a compliance and Information Technology audits at the Lusaka City Council (LCC).

In gaining an understanding of the matters you establish the following:
There is evidence of contractors collecting waste in the Central Business District contrary to the conditions in the agreement. This came to light when reviewing the payables ledger where you established that money was paid to contractors collecting refuse in the Central Business District even when the Council trucks were available and not undergoing maintenance. Your investigations revealed that most of the contracted waste collection companies were jointly owned with senior staff within the City Council.

When you checked with the finance department, you established that the payments to contractors who were contracted to collect refuse in the Central Business District contrary to the agreement were accounted for as if they were collecting refuse in non-Central Business District areas. Had you not sighted the supporting documentation, you would not have established this. When this matter was brought to the attention of a full council meeting, it was resolved that a forensic investigation be carried out because the fraud may only be a tip of the iceberg and it is necessary to investigate and bring the culprits to book.

Further investigations revealed that substantial amounts of money meant for licence renewal by contractors could not be accounted for. The contractors had copy receipts as evidence of payment but these could not be traced in the council records and there is no evidence that money was banked. It is suspected that the cashier who was responsible for receiving cash had a duplicate forged receipt book.

During the year, the Lusaka City Council (LCC) introduced an on-line payment system in conjunction with the mobile service providers and commercial banks. In order to manage this, the council purchased a new computer system to which all balances from the old manual system were transferred. All account holders for levies payable to the council will be able to log into the Council system to check their balances and once payment is made the accounts will be updated.

If the results of the intended forensic investigation will necessitate that the staff involved should be sued, you will be required to give evidence as an expert witness.

Required:

(a) Describe four (4) matters that should be considered in the compliance audit for the procurement of waste disposal trucks by the Lusaka City Council (LCC). (6 marks)

(b) Describe regularity and propriety in the compliance audit of the Lusaka City Council (LCC). (4 marks)

(c) Describe four (4) audit procedures in the compliance audit of the procurement of waste disposal trucks and the operations of waste disposal at the Lusaka City Council (LCC). (8 marks)

(d) (i) Describe the fraud that has been taking place in the Lusaka City Council (LCC). (6 marks)

(ii) Explain four (4) duties of the forensic investigator as an expert witness. (8 marks)

(e) (i) Explain the meaning of cyber-crime. (3 marks)

(ii) Identify and explain two (2) cyber-crime threats that the Lusaka City Council (LCC) faces. (5 marks)

[Total: 40 Marks]

SECTION B

There are four (4) questions in this section.

Attempt any three (3) questions.

<u>QUESTION TWO</u>

In August 2021, a new political party won the elections in a country called Beta. The President promised the citizenry that health care will be one (1) of the key priority sectors. A senior medical lecturer at a one (1) reputable public university was appointed Minister of Health.

The Minister of Health is concerned with the huge indebtedness of the government owned health institutions. On 18 October 2021, the Minister of Health formally requested the Head of the Supreme Audit Institution (SAI) to conduct a special audit on inventory of drugs and payables as at 31 December 2021.

You recently joined the SAI as an Audit Manager. The Head of the SAI gave you the responsibility to carry out the special audit. You have held meetings with the Minister of Health and the Finance Director. There was no meeting held with the Controlling Officer since he was dismissed at the beginning of September 2021.

The health institutions are highly politicised and most senior managers are sympathisers of the former political party. The health institutions are currently understaffed and procurements are handled by the finance department in each health institution.

The accounting package in use in all health institutions was acquired nine (9) years ago and the Information Technology (IT) staff has on several occasions recommended its replacement. Labour turnover is high and payables and inventory of drugs reconciliations were performed four (4) years ago.

The Minister of Health is interested in detailed schedules showing the following:

1. Payables – name of supplier, Goods Received Notes (GRNs), amount payable
2. Inventory of drugs – type of inventory, quantity, grade.

The Audit Senior has suggested that given the sensitivity of the matter, the audit team should visit all health institutions in order to confirm the completeness of the inventory of drugs. However, you are concerned that the current flash floods may make the exercise difficult. You are considering the use of external confirmations in the audit of payables.

Required:

(a) Explain the use of external confirmations in the audit of payables. (4 marks)

(b) Identify and explain six (6) main audit risks which the public sector auditors may face when auditing payables and the inventory of drugs. (9 marks)

(c) Evaluate the suggestion that the audit team should visit all the health institutions in order to confirm completeness of the inventory of drugs. (7 marks)

[Total: 20 Marks]

QUESTION THREE

You are a Director in the Office of the Auditor General (OAG) responsible for performance audits of companies in which the government has a stake. Some Members of Parliament (MPs) raised points of order over the operations of Ndola Nitrogen Chemicals (NNC).

In the year 2019, the Ministry of Finance and National Planning released K90 million for the recapitalisation of Ndola Nitrogen Chemicals (NNC). Before the release of the funds, NNC was operating at approximately 20% of its full capacity. The local community accused Senior Management of alleged waste of resources and they doubt whether auditing of government and public sector entities has a positive impact on trust in society.

Management requested the Minister of Finance and National Planning for additional funding amounting to K70 million so that recapitalisation could be completed.

The Auditor-General (AG) sanctioned a performance audit for NNC. The Government set clear targets for the recapitalisation programme. At least 15% of the funds are meant to empower the local community. The objective of the performance audit is to assess whether value for money has been achieved in the utilisation of the K90 million.

The performance audit objectives have been expressed as four (4) audit questions:

(i) What are the Government targets?

(ii) How has the K90 million been utilised?

(iii) What has been the impact on the operations of NNC?

(iv) To what extent has the K90 million benefited the local community?

At a planning meeting with the Auditor-General (AG), there was an emphasis of the need to ensure the performance audit report was balanced. A Junior Auditor who recently completed his ZiCA Diploma in Public Sector Financial Management programme has requested you to explain the key features of a balanced performance audit report.

Required:

(a) Define performance audit and explain how it contributes to the promotion of accountability and transparency. (7 marks)

(b) Explain three (3) key features of a balanced performance audit report. (6 marks)

(c) Recommend seven (7) audit procedures which should be carried out in the performance audit of Ndola Nitrogen Chemicals (NNC). (7 marks)

[Total: 20 Marks]

QUESTION FOUR

(a) You are a member of the Supreme Audit Institution (SAI) in your country. The Supreme Audit Institution (SAI) of your country is a member of the International Organization of Supreme Audit Institutions (INTOSAI)

As part of its mandate, the International Organization for Supreme Audit Institutions (INTOSAI) supports, through financing, peer reviews of Supreme Audit Institutions (SAIs) of member countries.

You are the Principal Auditor on the assignment to evaluate the operations of the Supreme Audit Institution (SAI) of an INTOSAI member country. You are reviewing the working papers prepared by members of the audit team and the following are among the findings:

1. Staff are transferred between the internal audit departments of government institutions and the Supreme Audit Institution (SAI). The objective is to ensure lack of familiarity by frequenting changing staff.
2. The Supreme Audit Institution (SAI) does not have absolute right of access of information and documentation making it difficult to verify certain matters.
3. The Supreme Audit Institution (SAI) is restricted with regards to power of carrying out investigations. These are only carried out on authority of the executive.
4. There is a noted delay in the release of reports by the Supreme Audit Institution (SAI). This arises because the draft reports by the Supreme Audit Institution (SAI) require clearance by a Committee of Cabinet.
5. The Supreme Audit Institution (SAI) makes recommendations on its findings and submits its report to the Select Committee of Parliament responsible for public expenditure. The power to enforce the recommendations lie with the Select Committee and most of the recommendations are not followed by the audited entities.
6. Annually, at the beginning of the year, the Committee of Cabinet decides on the audits that will be conducted by the Supreme Audit Institution (SAI).
7. Currently the management of the Supreme Audit Institution (SAI) comprises staff seconded to the Supreme Audit Institution (SAI) and the majority of the rest of staff do not have the qualifications and experience to carry out public sector audits.
8. The Supreme Audit Institution (SAI) has a staff appraisal system in place. Staff who get an appraisal rating of three (3) and above are relieved of their duties. The Head of the Supreme Audit Institution (SAI) is appraised by a committee of three (3) headed by the Minister of Finance.

Required:

Identify and explain the violations to the principles of the Mexico Declaration by the Supreme Audit Institution (SAI). (10 marks)

(b) The Government of Zambia has a bi-lateral agreement with the United States of America for the construction of Centers of Excellence at all the major hospitals in the country. The first Centre of Excellence was constructed five (5) years ago at the University Teaching Hospital.

A grant of $1.5 million was received from the American Government in the current year for the construction of a Centre of Excellence in Ndola at the Children's hospital. The proposed building will be the same as the one constructed in Lusaka. The agreement signed between the Zambian Government and the American Government includes the following terms:

1. The construction of the Centre should be by way of public tender following the government public procurement regulations.
2. There is an approved budget for all expenditure and this should be strictly adhered to. Any over-expenditure requires prior approval otherwise it will be disallowed.
3. All payments for work done should be supported by certificates signed by the Architects certifying that work is of the expected standard.
4. Monthly expenditure reports should be submitted to the donors supported by the bank statements for the month.

Required:

(i) Explain the objective of the intended compliance audit of the construction of the Centre of excellence. (2 marks)

(ii) Define the subject matter in the intended compliance audit of the construction of the Center of excellence. (4 marks)

(iii) Suggest suitable criteria for the compliance audit of the construction of a Center of excellence at the children's hospital. (4 marks)

[Total: 20 Marks]

QUESTION FIVE

You work for the Office of the Auditor General (OAG) as a Senior Auditor under the directorate of Public and Investments Audits.

You have been assigned to carry out the audit of the financial statements of Mafuta Refinery Ltd for the year ended 31 December 2021. The Government controls 75% of the shares of Mafuta Refinery Ltd and the remaining shares are owned by individual and institutional shareholders.

A new Board of Directors was recently appointed. This comprises executive and non-executive members. At its first meeting, a majority of the non-executive board members expressed concern that the company is audited by a firm of private auditors Chris & Associates Chartered Accountants, and at the same time it is required to be audited by the Office of the Auditor General (OAG). They felt that since the financial statements will be audited by the Office of the Auditor General (OAG) there is no need for the audit by external auditors. The board was informed that the private auditors for the previous financial year almost resigned due to poor internal controls in the company. The auditors could not get all the evidence that they required and they settled for the issuance of a disclaimer of opinion.

You have just completed the risk assessment at the planning stage of the audit of the financial statements of Mafuta Refinery Ltd and you have concluded that the audit risk is higher than can be tolerated. This conclusion is in line with that of the private auditors who audited the previous year financial statements.

Required:

(a) Discuss the requirement that Mafuta Refinery Ltd requires to be audited by the Office of the Auditor General (OAG) despite having been audited by Chris & Associates Chartered Accountants. (6 marks)

(b) Explain audit risk in the audit of the financial statements of Mafuta Refinery Ltd and distinguish it from the risk of material misstatement. (8 marks)

(c) Suggest the response that should be taken in view of the fact that audit risk in the audit of the financial statements of Mafuta Refinery Ltd cannot be reduced to acceptable levels. (6 marks)

[Total: 20 Marks]

END OF PAPER

CA 3.7 PUBLIC SECTOR AUDITS AND ASSURANCE SUGGESTED SOLUTIONS

SOLUTION ONE

(a) **Matters to consider in the compliance audit of waste disposal:**

1. The conditions contained in the agreement between the Constituency Development Committee and the Lusaka City Council will be considered and specifically the matters below.
2. The type and size of trucks that were acquired will be considered.
3. Information regarding the Public Procurement system which will be the basis for examining the system used by the Lusaka City Council in procuring the trucks.
4. The collection of refuse in the City and the Central Business District by the council and contractors.

(b) **Regularity and propriety in compliance auditing:**

Regularity audits performed by the public sector auditor are audits that aim at establishing whether activities, transactions and information relating to an audited entity are in accordance with legislation, regulations or agreements.

In the scenario in the question a regularity audit would be one considering whether the use of the K5 million CDF is in accordance with the conditions in the use of CDFs.

Propriety audits in compliance auditing relate to general principles of sound public sector financial management and the conduct of public sector officials.

In the information in the scenario, the compliance audit in the conduct of say the Town Clerk or the Mayor of the City of Lusaka will be a propriety compliance audit. In this case the mayor has assumed powers that he does not poses and this could be a subject of a propriety audit.

(c) **Audit procedures in waste disposal in Lusaka:**

1. Inspect the trucks procured and confirm that they are the same make described in the agreement with the constituency Development Committee.
2. Evaluate the procurement procedures followed in procuring the trucks and confirm it was done in compliance with the Public Procurement system.
3. Review payment for refuse collection to contractors and confirm that contactors only cover areas other than the Central Business District.
4. Examine the service records of the trucks and confirm they are services every 5 000 klm as per agreement.
5. Evaluate the garbage collection records between the Lusaka City Council and the contractors with a view to establish whether in line with the 60% and 40% for the council and the contractors as per agreement.

(d) (i) **Description of the fraud at Lusaka City Council:**

There are two cases of fraud taking place at the Lusaka City Council and these are explained below:

Incorrectly classifying contractor costs:
The fraud involving deliberate misclassification of contractor garbage collection costs as if they collected garbage from designated areas when not is classified as **fraudulent financial reporting**. This is done so as to mislead the users of the financial reports and an effort to hide the illegality that is being done.

Misappropriation of contractor license renewal fees:
The failure to trace license renewal fees made by some contractors is a fraud that is classified as **misappropriation of assets**. Forged receipts were issued to the contractors and the money received was not banked into the council bank account but taken for personal use.

(ii) **Duties of the forensic investigator as an expert witness:**

1. When engaged to carry out an investigation the forensic investigator owes a duty to perform the work professionally to the party that has appointed them. Where the investigator is required to give evidence as an expert witness, they should understand that they have an overriding duty to help the court on matters within their expertise.
2. To help the court deal with cases proportionately, expeditiously and fairly. This should be done by the expert witness without taking the role of a mediator between the parties.
3. To provide opinions which are independent notwithstanding the pressure that may be there and to this effect the expert requires to be independent and would express the same opinion if the instructions had been given to the other party in the case.
4. To provide opinions on matters within the expert's area of expertise and to indicate to the court when matters outside their expertise arise.

(e) (i) **Meaning of cyber-crimes:**
This is crime that involves unauthorized access to a computer system of an organization. This is largely connected to the increased use of internet which has resulted in increased connectivity of computers to the 'outside' world.

(ii) **Cyber-Crime threats:**

1. **Direct theft:**
   This is a type of fraud where criminals gain access to the computer system and steals money of the organization. In this case direct theft could be by way of gaining access to the council systems and transfer funds into the criminal's bank account.

2. **Malicious damage:**
   This is where cyber criminals gain access to the computer system and cause damage such as by installing software that can cause damage such as

corrupting of data. The motive could be simply to injure the organization and could be for example someone who owes the council large amounts of money and wishes the council to lose information.

SOLUTION TWO

(a) External confirmations

ISSAI 1505 *External Confirmations* gives detailed guidance in the area of external confirmations. External confirmation is audit evidence obtained as a direct written response to the auditor from a third party (confirming party) in paper form, or by electronic or other medium. This may either be positive or negative.

External confirmations are rarely used in the audit of payables. This is because external evidence in the form of supplier invoices and statements are normally available.

External confirmations could, however, be used if the relevant internal controls are weak or the supplier statements are unavailable or cannot be relied upon.

(b) Main audit risks

1. **Political interference** – The health institutions are highly politicised and most senior managers are sympathizers of the former political party. The conduct of the audit could be adversely affected as most senior managers may not offer the required co-operation for an effective audit.
2. **No segregation of duties –** The health institutions are currently understaffed and procurements are handled by the finance department in each health institution. Errors and frauds could go undetected.
3. **Unreliable accounting package** – The figures generated by the system may not be reliable.
4. **New Audit Manager** – This could increase detection risk as the new Audit Manger may not have the cumulative audit knowledge and experience.
5. **High labour turnover** – This could make audit work difficult as a number of queries may remain unanswered.
6. **Unreconciled figures** – Misstatements may go unnoticed, rendering the figures unreliable.
7. **Accessibility of some health institutions due to flash floods** – This will significantly hinder the public sector auditors' ability to collect sufficient appropriate audit evidence.

(c) Evaluation of the suggestion that the audit team should visit all the health institutions:

According to ISSAI 1500 *Audit Evidence* auditors must design and perform audit procedures to obtain sufficient appropriate audit evidence. This means visiting all the health institutions in order to confirm completeness of the inventory of drugs can be an ideal way of gathering sufficient appropriate evidence. However, there are practical limitations which could include finances (expensive) and accessibility of some of the areas given that it is the rainy season and the country is experiencing flash floods.

The Lima Declaration states that SAIs will normally find it necessary to use a sampling approach to audits, and that samples should be selected on the basis of a given model and shall be sufficiently numerous to make it possible to judge the quality and regularity of financial management. In this respect, public sector audit methods are the same as audits in the private sector.

ISSAI 1530 *Audit Sampling* gives detailed guidance in the area of sampling. It states that public sector auditors may use sampling to test the accuracy and completeness of reported figures. A sample for audit purpose, however, should be selected so as to reduce sampling risk to an acceptably low level. Risk of misstatement and the effectiveness of internal will have to be considered.

It is therefore not necessary to visit all the health institutions in order to confirm completeness of the inventory of drugs, unless fraud is suspected.

SOLUTION THREE

(a) **Performance audits and the promotion of accountability & transparency:**

ISSAI 3000 *Performance Audit* defines performance audit as an independent, objective and reliable examination of whether government undertakings, systems, operations, programs, activities or organisations are operating in accordance with the operating principles of economy, efficiency and/or effectiveness and whether there is room for improvement.

Performance auditing contributes to promotion of accountability and transparency in the following ways:

- **Accountability** – it promotes accountability by assisting those charged with governance and oversight responsibilities to improve performance. It does this by examining whether decisions by legislature or executive, and their implementation, are efficient and effective, and whether the taxpayers or citizens have received value for money.
- **Transparency** – it promotes transparency by providing an insight into the management and outcomes of different government activities, for the benefit of parliament, taxpayers and other providers of finance, those targeted by government policies and media. It also serves as a basis for learning and improvements.

(b) **Key features of a balanced performance audit report**

- Present findings objectively and fairly, in neutral terms and avoiding biased information.
- Present different perspectives and viewpoints. Different views are important in promoting balance and fairness.
- Be complete. This means including both good and bad points, and giving credit where it is due.

(c) **Recommended audit procedures**

- Obtain a copy of the funding agreement and note the government targets
- Obtain a detailed schedule of expenditure and check the related budget line
- Inspect any procurement documents for evidence of procurement at the least possible cost without compromising quality
- Inspect minutes of meeting of the board for evidence of approval
- Agree the expenditure to bank statements and the cash book
- Use an expert to determine the current capacity utilisation and verify achievement government targets
- Discuss the expert's findings with management and those charged with governance
- Request management to provide details on expenditure which have benefitted the local community and check whether this accounts for at least 15% of the funds
- Talk to selected local community members in order to confirm the assertions by management.

SOLUTION FOUR

(a) Violation of the Mexico declaration by the SAI:

(i) The fact that the SAI does not have access to information and documentation that it requires is not in compliance the Mexico declaration. The Mexico declaration provides that the SAI should have unrestricted access to information it requires to carry out the audits.

(ii) The delays in the release of reports of the SAI until clearance by a Committee of Cabinet is not in line with the provisions of the Mexico declaration. The declaration provides that the SAI should be free to decide on the contents of its reports and release the report as it deems fit.

(iii) The role of following up recommendations that the Select Committee of Cabinet has assumed is in conflict with the provisions of the Mexico declaration.

The declaration provides that for effective public sector auditing, the SAI should have effective follow up procedures and the power the enforcement of recommendations.

(iv) The annual staff appraisal on the performance of the Head of the Supreme Audit Institution and the power of removing him from office is contrary to the principles in the Mexico declaration. The Head of the SAI will not be objective and will fear the loss of his job.

The Mexico declaration recommends that the Head of the Supreme Audit Institution should have security of tenure of office and should only be relieved of his duties on clearly specified conditions.

(v) The decisions made annually by the Committee of Cabinet to decide on the audits that will be conducted by the SAI is contrary to the principles of the Mexico declaration.
The declaration provides that the SAI should have 'a sufficiently broad mandate and full discretion' including deciding on the selection of issues for audit.

(b) (i) **The objective of the compliance audit:**
The objective of the intended compliance audit of the project to construct a Centre of excellence is to obtain evidence that the construction has been carried out in accordance with the agreed upon guidelines. In this case, there is an agreement between the Zambian Government and the American Government containing the conditions that should have been followed.

(ii) **The subject matter information:**
The subject matter information in a compliance audit is the information on which the public sector auditor will perform audit procedures and conclude as necessary. This is prepared by the responsible party.

In the case at hand, the quarterly and annual reports by the management of the children's hospital is the subject matter information that the public sector auditor will use in the performance audit.

(iii) **Suitable criteria in the performance audit:**
The criteria that will be used in the compliance audit is the benchmark against which the subject matter information will be compared.

In the case at hand, the criteria is the signed agreement which contains the condition on how the grant should be spent. The public sector auditor will aim at establishing that the criteria have been complied with as stipulated and these include:

- That tender procedures were followed in awarding project.
- Comparison of actual expenditure against the approved budget.
- Requirements that all work done is certified by the Architect.
- That monthly reports are prepared and submitted by the grantee.

SOLUTION FIVE

(a) **Need for a statutory company to be audited by the SAI**:

It is a legal requirement that all public institutions should be audited by the Supreme Audit Institution (SAI). This is notwithstanding the fact that financial audits are also performed by private auditors as is the case with Mafuta Refinery Ltd.

The Supreme Audit Institution is the external auditor of public institutions and assists those charged with governance to perform their duties. The interest of the citizens is at the centre of public sector audits. Parliament who are the representatives of the citizens appropriates funds to the executive and other government agencies. The same parliament empowers the SAI to perform audits of all public institutions and report back to it.

The scope of audits by private auditors is limited to the audit of financial statements. The scope of the public sector auditors is much wider to include performance and compliance audits.

(b) **Audit risk in the audit if Mafuta Refinery Ltd**:
Audit risk is the risk that the public sector auditor may issue an inappropriate audit opinion. For example where an unmodified opinion would have been appropriate a modified opinion is issued and vice versa.

Audit risk comprises the following elements:

Inherent risk – This is the risk that the auditor may issues an inappropriate conclusion because of the nature of the items, for example, that it is an accounting estimate.

Control risk – This is the risk that material misstatements may go undetected because of lack or poor internal controls. Internal control systems have a limitation in that errors and omission which could be material may go through undetected.

Detection risk – This is the risk that the auditor even having performed the audit in accordance with the relevant standards still does not detect material misstatements. This could happen, for example, where members of the audit team lack the necessary skills and competences to perform the audit resulting in material misstatements not being detected.

Distinction between audit risk and risk of material misstatement:
Risk of material misstatement is the risk that the public sector auditor will reach an inappropriate audit opinion due to reasons other than detection risk. This is the risk before the audit is performed and comprises inherent risk and control risk.

Inherent risk and control risk are under the control of the management and there is nothing that the auditor can be to reduce these two elements.

(c) **Response to risk that audit risk above tolerable level:**

Audit risk is the risk that the public sector auditor will issue an inappropriate audit opinion. The response when audit risk cannot be reduced to acceptable levels is different between private audits and public sector audits.

In the case of the private sector audits, when audit risk cannot be reduced to acceptable levels, the auditor will decline appointment in the case of new audit appointments and may resign in the case of continuing audits.

In the case of public sector auditing, the mandate for the public sector auditors to perform auditors is contained in statutes. This means regardless of the risk levels the public sector audits have to be performed. The response of the public sector auditors in this case is to use professional skepticism throughout the audit process. This means that auditors should be alert and respond to the risks that have been identified in order to confirm whether or not they have caused material misstatements.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CA ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA 3.8: PUBLIC SECTOR FINANCIAL MANAGEMENT

FRIDAY 24 MARCH 2023

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

INSTRUCTIONS TO CANDIDATES

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

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

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

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

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

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

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

8. Present legible and tidy work.

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

10. Present Value and Annuity tables are attached at the end of this paper.

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

SECTION A

This question is compulsory and must be attempted

QUESTION ONE- (COMPULSORY)

(a) The Government of country P launched a risk management policy for the public sector five (5) years ago. However, to date very few Government Ministries have implemented the risk management framework. Some Government institutions have cited lack of understanding of the risk management framework, while others have argued that the whole government system has a financial risk Management framework focusing on fiscal risks and at the level of sectors the risks associated with approved budgets and associated cash flows. It is the desire of the Government to ensure that the risk management framework is implemented across Government sectors.

Required:

(i) Explain institutional arrangements that can improve risk management. (8 marks)

(ii) State the risk management and control activities that need to be undertaken to manage the identified risks. (8 marks)

(b) The Government of country S is going through a lot of Financial Stress and has since developed an Economic Recovery Programme. The Economic Recovery Plan is anchored on five (5) strategies namely; restoring macro-economic stability; attaining fiscal and debt sustainability; dismantling the backlog of domestic arrears; restoring growth and diversifying the economy and safeguarding social protection programmes. In order to achieve these strategies, the government will need to raise funds from taxes, debt, engaging co-operating partners or encouraging public institutions to engage in Public Private Partnership to implement developmental projects.

Required:

(i) Explain the benefits of Public Private Partnership to a Nation which is on an Economic Recovery Path. (10 marks)

(ii) Discuss how Public Sector outsourcing to private sector leads to cost reduction. Justify your answer using relevant examples. (10 marks)

(iii) State how the financial objectives of public entities might change after privatization. (4 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section.

Attempt any THREE (3) questions.

QUESTION TWO

The National Transport Corporation (NTC) is a state owned transport company. It was established in 2003 under the National transport Act. The company currently owns and operates a fleet of 100 trucks. Its trucks operate in several countries such as Mozambique, Angola, Lesotho, Swaziland and South Africa.

In the recent past there was a sharp rise in the number of people requiring transportation of goods. The reason for the increase was due to the rise in both population and economic growth in the country where NTC is based.

NTC is now considering investing in three (3) additional trucks to meet the increased demand for transportation. The government has, however, not budgeted for the trucks. NTC management has therefore been compelled to look at other sources of finance. It is now considering obtaining a bank loan to finance the acquisition of the trucks.

NTC has experienced consistent growth in turnover the last six (6) years. This has been a delight of the permanent secretary at Ministry of Transport. However, in spite of the positive growth, the company had serious working capital shortfalls and required strengthening of its treasury management.

The government recently passed a law to compel all state owned enterprises to train their employees. This is due to the fact that a number of state owned companies have unqualified personnel. NTC will require additional staff to support the current volume of business. Also, some of NTC staff will need to be trained in treasury management. The NTC has recently started operating a centralized treasury management system.

Required:

(a) Explain five (5) advantages of a Centralized Treasury Management System such as the one being operated by the National Transport Company (NTC). (10 marks)

(b) Explain any five (5) risks which the National Transport Company is exposed to. (10 marks)

[Total: 20 Marks]

QUESTION THREE

You have been invited to a public presentation on public sector financial management sensitisation as a Director of Finance in the Ministry of Finance. Due to the limited time allocated to your presentation, you have decided to only include a clarification on the meaning of public sector, the differences between public sector financial management and private sector financial management as well as the role of the Ministry of Finance. You have also been reminded by the Minister to include the vision statement of the Ministry of Finance which is, "To be a world-class institution in the mobilisation and management of public resources for sustainable national development."

Required:

(a) Explain the meaning of public sector according to the System of National Accounts framework and International Public Sector Accounting Standards Board conceptual framework. (7 marks)

(b) Differentiate public sector financial management and private sector financial management. (8 marks)

(c) Explain the two (2) key functions of the Ministry of Finance. (5 marks)

[Total: 20 Marks]

QUESTION FOUR

(a) Budgeting is an important process by which the government plans its programs and activities for a given fiscal period. For a budget to be effective in the delivery of economic and social agenda of Government, the budgeting process should be linked to the macroeconomic and fiscal policies of the country. No wonder the Public Financial Management Act has made extensive provision on macroeconomic and fiscal policies to guide the government in its budget formulation and execution. The budgeting process is preceded by fiscal policy planning to serve as a foundation for the realization of the inspiration of the budget.

A national budget is a means to an end and not an end in itself, it should therefore be controlled and managed holistically to achieve the desired economic, fiscal and social outcomes. The Minister of Finance and Controlling Officers are actively involved in post budget management and control activities at various levels to ensure that budget targets are achieved.

However, audit reports of public sector entities often reveal waste and misuse of public funds. The expenditures may not be in line with the intentions of the budget.

Required:

(i) Explain four (4) mechanisms established by government to ensure that public sector organizations achieve value for money in public financial management. (8 marks)

(ii) Explain the primary fiscal policy objective of government and identify three (3) guiding principles in the formulation and implementation of a fiscal policy objective. (8 marks)

(b) According to the Public Financial Management Act, the Minister of Finance shall subject to the approval of cabinet, issue guidelines for the preparation of the budget for each financial year and circulate copies of the guidelines to all government departments. Budget Guidelines play an important role in budget development.

Required:

Explain the importance of four (4) Budget Guidelines in Public Sector Accounting and Finance.

(4 marks)

[Total: 20 Marks]

QUESTION FIVE

As a Director of Finance, you have been tasked by the Accountant General to evaluate some key findings of a recent PEFA review for Zambia. Below is an extract of Pillar III management of Assets and Liabilities performance indicators as reported in the 2017 Public Expenditure Financial Accountability framework (PEFA) report.

INDICATOR/DIMENSION	SCORE	DESCRIPTION
I-10 Fiscal risk reporting (M2)	D+	Monitoring is inadequate to know or manage the fiscal risks from public corporations and subnational government.
10.1 Monitoring of public corporations	D	No single unit under the IDM Department is responsible for tracking the submission of audited financial statements from public

		corporations. In addition, the sample audited by the OAG shows that 50% of government corporations did not submit audited financial statements
10.2 Monitoring of subnational governments	C	Ministry of Local Government monitors the preparation of financial statements by subnational government/councils. The local government auditors undertake the audit of councils but most council have not been audited for the past 9 years as this unit is understaffed and their qualifications are not up-to-date.
10.3 Contingent liabilities and other fiscal risks	D	The government guarantees loans on behalf of agencies upon assessing their viability. The government through the IDM records the loan guarantees through the loan agreements (terms, amounts, and purpose). When these guarantees become payable and the agencies are unable to pay, the government recognizes the debt in the financial report.

Apart from the management of assets and liabilities PEFA identifies other six pillars of performance such as Policy Based Fiscal Strategy and Budgeting (pillar 4).

Required:

(a) Explain the components of the pillar under the PEFA framework on Policy based on Fiscal strategy. (8 marks)

(b) Explain the rationale of including Internal Control Annex in the PEFA Assessment. (8 marks)

(c) Explain financial risk in relation to the Private Sector Organizations from both the Short-term and Long-term perspectives. (4 marks)

[Total: 20 Marks]

END OF PAPER

Formulae

Modigliani and Miller Proposition 2 (with tax)

$$k_e = k_e^i + (1 - T)(k_e^i - k_d)\frac{V_d}{V_e}$$

Two asset portfolio

$$s_p = \sqrt{w_a^2 s_a^2 + w_b^2 s_b^2 + 2w_a w_b r_{ab} s_a s_b}$$

The Capital Asset Pricing Model

$$E(r_i) = R_f + \beta_i (E(r_m) - R_f)$$

The asset beta formula

$$\beta_a = \left[\frac{V_e}{(V_e + V_d(1 - T))}\beta_e\right] + \left[\frac{V_d(1 - T)}{(V_e + V_d(1 - T))}\beta_d\right]$$

The Growth Model

$$P_o = \frac{D_o(1 + g)}{(r_e - g)}$$

Gordon's growth approximation

$$g = br_e$$

The weighted average cost of capital

$$WACC = \left[\frac{V_e}{V_e + V_d}\right]k_e + \left[\frac{V_d}{V_e + V_d}\right]k_d(1 - T)$$

The Fisher formula

$$(1 + i) = (1 + r)(1 + h)$$

Purchasing power parity and interest rate parity

$$S_1 = S_0 x \frac{(1 + h_c)}{(1 + h_b)} \qquad F_0 = S_0 x \frac{(1 + i_c)}{(1 + i_b)}$$

Modified Internal Rate of Return

$$MIRR = \left[\frac{PV_R}{PV_I}\right]^{\frac{1}{n}} \left(1 + r_e\right) - 1$$

The Black-Scholes option pricing model

$$c = P_a N(d_1) - P_e N(d_2) e^{-rt}$$

Where:

$$d_1 = \frac{\ln(P_a / P_e) + (r + 0.5s^2)t}{s\sqrt{t}}$$

$$d_2 = d_1 - s\sqrt{t}$$

The Put Call Parity relationship

$$p = c - P_a + P_e e^{-rt}$$

Present Value Table

Present value of 1 i.e. $(1 + r)^{-n}$

Where r = discount rate
n = number of periods until payment

Discount rate (r)

Periods (n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0·990	0·980	0·971	0·962	0·952	0·943	0·935	0·926	0·917	0·909	1
2	0·980	0·961	0·943	0·925	0·907	0·890	0·873	0·857	0·842	0·826	2
3	0·971	0·942	0·915	0·889	0·864	0·840	0·816	0·794	0·772	0·751	3
4	0·961	0·924	0·888	0·855	0·823	0·792	0·763	0·735	0·708	0·683	4
5	0·951	0·906	0·863	0·822	0·784	0·747	0·713	0·681	0·650	0·621	5
6	0·942	0·888	0·837	0·790	0·746	0·705	0·666	0·630	0·596	0·564	6
7	0·933	0·871	0·813	0·760	0·711	0·665	0·623	0·583	0·547	0·513	7
8	0·923	0·853	0·789	0·731	0·677	0·627	0·582	0·540	0·502	0·467	8
9	0·941	0·837	0·766	0·703	0·645	0·592	0·544	0·500	0·460	0·424	9
10	0·905	0·820	0·744	0·676	0·614	0·558	0·508	0·463	0·422	0·386	10
11	0·896	0·804	0·722	0·650	0·585	0·527	0·475	0·429	0·388	0·305	11
12	0·887	0·788	0·701	0·625	0·557	0·497	0·444	0·397	0·356	0·319	12
13	0·879	0·773	0·681	0·601	0·530	0·469	0·415	0·368	0·326	0·290	13
14	0·870	0·758	0·661	0·577	0·505	0·442	0·388	0·340	0·299	0·263	14
15	0·861	0·743	0·642	0·555	0·481	0·417	0·362	0·315	0·275	0·239	15

(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0·901	0·893	0·885	0·877	0·870	0·862	0·855	0·847	0·840	0·833	1
2	0·812	0·797	0·783	0·769	0·756	0·743	0·731	0·718	0·706	0·694	2
3	0·731	0·712	0·693	0·675	0·658	0·641	0·624	0·609	0·593	0·579	3
4	0·659	0·636	0·613	0·592	0·572	0·552	0·534	0·516	0·499	0·482	4
5	0·593	0·567	0·543	0·519	0·497	0·476	0·456	0·437	0·419	0·402	5
6	0·535	0·507	0·480	0·456	0·432	0·410	0·390	0·370	0·352	0·335	6
7	0·482	0·452	0·425	0·400	0·376	0·354	0·333	0·314	0·296	0·279	7
8	0·434	0·404	0·376	0·351	0·327	0·305	0·285	0·266	0·249	0·233	8
9	0·391	0·361	0·333	0·308	0·284	0·263	0·243	0·225	0·209	0·194	9
10	0·352	0·322	0·295	0·270	0·247	0·227	0·208	0·191	0·176	0·162	10
11	0·317	0·287	0·261	0·237	0·215	0·195	0·178	0·162	0·148	0·135	11
12	0·286	0·257	0·231	0·208	0·187	0·168	0·152	0·137	0·124	0·112	12
13	0·258	0·229	0·204	0·182	0·163	0·145	0·130	0·116	0·104	0·093	13
14	0·232	0·205	0·181	0·160	0·141	0·125	0·111	0·099	0·088	0·078	14
15	0·209	0·183	0·160	0·140	0·123	0·108	0·095	0·084	0·074	0·065	15

Annuity Table

Present value of an annuity of 1 i.e. $\frac{1-(1+r)^{-n}}{r}$

Where r = discount rate
n = number of periods

Discount rate (r)

Periods (n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0·990	0·980	0·971	0·962	0·952	0·943	0·935	0·926	0·917	0·909	1
2	1·970	1·942	1·913	1·886	1·859	1·833	1·808	1·783	1·759	1·736	2
3	2·941	2·884	2·829	2·775	2·723	2·673	2·624	2·577	2·531	2·487	3
4	3·902	3·808	3·717	3·630	3·546	3·465	3·387	3·312	3·240	3·170	4
5	4·853	4·713	4·580	4·452	4·329	4·212	4·100	3·993	3·890	3·791	5
6	5·795	5·601	5·417	5·242	5·076	4·917	4·767	4·623	4·486	4·355	6
7	6·728	6·472	6·230	6·002	5·786	5·582	5·389	5·206	5·033	4·868	7
8	7·652	7·325	7·020	6·733	6·463	6·210	5·971	5·747	5·535	5·335	8
9	8·566	8·162	7·786	7·435	7·108	6·802	6·515	6·247	5·995	5·759	9
10	9·471	8·983	8·530	8·111	7·722	7·360	7·024	6·710	6·418	6·145	10
11	10·37	9·787	9·253	8·760	8·306	7·887	7·499	7·139	6·805	6·495	11
12	11·26	10·58	9·954	9·385	8·863	8·384	7·943	7·536	7·161	6·814	12
13	12·13	11·35	10·63	9·986	9·394	8·853	8·358	7·904	7·487	7·103	13
14	13·00	12·11	11·30	10·56	9·899	9·295	8·745	8·244	7·786	7·367	14
15	13·87	12·85	11·94	11·12	10·38	9·712	9·108	8·559	8·061	7·606	15

(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0·901	0·893	0·885	0·877	0·870	0·862	0·855	0·847	0·840	0·833	1
2	1·713	1·690	1·668	1·647	1·626	1·605	1·585	1·566	1·547	1·528	2
3	2·444	2·402	2·361	2·322	2·283	2·246	2·210	2·174	2·140	2·106	3
4	3·102	3·037	2·974	2·914	2·855	2·798	2·743	2·690	2·639	2·589	4
5	3·696	3·605	3·517	3·433	3·352	3·274	3·199	3·127	3·058	2·991	5
6	4·231	4·111	3·998	3·889	3·784	3·685	3·589	3·498	3·410	3·326	6
7	4·712	4·564	4·423	4·288	4·160	4·039	3·922	3·812	3·706	3·605	7
8	5·146	4·968	4·799	4·639	4·487	4·344	4·207	4·078	3·954	3·837	8
9	5·537	5·328	5·132	4·946	4·772	4·607	4·451	4·303	4·163	4·031	9
10	5·889	5·650	5·426	5·216	5·019	4·833	4·659	4·494	4·339	4·192	10
11	6·207	5·938	5·687	5·453	5·234	5·029	4·836	4·656	4·486	4·327	11
12	6·492	6·194	5·918	5·660	5·421	5·197	4·988	4·793	4·611	4·439	12
13	6·750	6·424	6·122	5·842	5·583	5·342	5·118	4·910	4·715	4·533	13
14	6·982	6·628	6·302	6·002	5·724	5·468	5·229	5·008	4·802	4·611	14
15	7·191	6·811	6·462	6·142	5·847	5·575	5·324	5·092	4·876	4·675	15

Standard normal distribution table

	0·00	0·01	0·02	0·03	0·04	0·05	0·06	0·07	0·08	0·09
0·0	0·0000	0·0040	0·0080	0·0120	0·0160	0·0199	0·0239	0·0279	0·0319	0·0359
0·1	0·0398	0·0438	0·0478	0·0517	0·0557	0·0596	0·0636	0·0675	0·0714	0·0753
0·2	0·0793	0·0832	0·0871	0·0910	0·0948	0·0987	0·1026	0·1064	0·1103	0·1141
0·3	0·1179	0·1217	0·1255	0·1293	0·1331	0·1368	0·1406	0·1443	0·1480	0·1517
0·4	0·1554	0·1591	0·1628	0·1664	0·1700	0·1736	0·1772	0·1808	0·1844	0·1879
0·5	0·1915	0·1950	0·1985	0·2019	0·2054	0·2088	0·2123	0·2157	0·2190	0·2224
0·6	0·2257	0·2291	0·2324	0·2357	0·2389	0·2422	0·2454	0·2486	0·2517	0·2549
0·7	0·2580	0·2611	0·2642	0·2673	0·2704	0·2734	0·2764	0·2794	0·2823	0·2852
0·8	0·2881	0·2910	0·2939	0·2967	0·2995	0·3023	0·3051	0·3078	0·3106	0·3133
0·9	0·3159	0·3186	0·3212	0·3238	0·3264	0·3289	0·3315	0·3340	0·3365	0·3389
1·0	0·3413	0·3438	0·3461	0·3485	0·3508	0·3531	0·3554	0·3577	0·3599	0·3621
1·1	0·3643	0·3665	0·3686	0·3708	0·3729	0·3749	0·3770	0·3790	0·3810	0·3830
1·2	0·3849	0·3869	0·3888	0·3907	0·3925	0·3944	0·3962	0·3980	0·3997	0·4015
1·3	0·4032	0·4049	0·4066	0·4082	0·4099	0·4115	0·4131	0·4147	0·4162	0·4177
1·4	0·4192	0·4207	0·4222	0·4236	0·4251	0·4265	0·4279	0·4292	0·4306	0·4319
1·5	0·4332	0·4345	0·4357	0·4370	0·4382	0·4394	0·4406	0·4418	0·4429	0·4441
1·6	0·4452	0·4463	0·4474	0·4484	0·4495	0·4505	0·4515	0·4525	0·4535	0·4545
1·7	0·4554	0·4564	0·4573	0·4582	0·4591	0·4599	0·4608	0·4616	0·4625	0·4633
1·8	0·4641	0·4649	0·4656	0·4664	0·4671	0·4678	0·4686	0·4693	0·4699	0·4706
1·9	0·4713	0·4719	0·4726	0·4732	0·4738	0·4744	0·4750	0·4756	0·4761	0·4767
2·0	0·4772	0·4778	0·4783	0·4788	0·4793	0·4798	0·4803	0·4808	0·4812	0·4817
2·1	0·4821	0·4826	0·4830	0·4834	0·4838	0·4842	0·4846	0·4850	0·4854	0·4857
2·2	0·4861	0·4864	0·4868	0·4871	0·4875	0·4878	0·4881	0·4884	0·4887	0·4890
2·3	0·4893	0·4896	0·4898	0·4901	0·4904	0·4906	0·4909	0·4911	0·4913	0·4916
2·4	0·4918	0·4920	0·4922	0·4925	0·4927	0·4929	0·4931	0·4932	0·4934	0·4936
2·5	0·4938	0·4940	0·4941	0·4943	0·4945	0·4946	0·4948	0·4949	0·4951	0·4952
2·6	0·4953	0·4955	0·4956	0·4957	0·4959	0·4960	0·4961	0·4962	0·4963	0·4964
2·7	0·4965	0·4966	0·4967	0·4968	0·4969	0·4970	0·4971	0·4972	0·4973	0·4974
2·8	0·4974	0·4975	0·4976	0·4977	0·4977	0·4978	0·4979	0·4979	0·4980	0·4981
2·9	0·4981	0·4982	0·4982	0·4983	0·4984	0·4984	0·4985	0·4985	0·4986	0·4986
3·0	0·4987	0·4987	0·4987	0·4988	0·4988	0·4989	0·4989	0·4989	0·4990	0·4990

This table can be used to calculate $N(d)$, the cumulative normal distribution functions needed for the Black-Scholes model of option pricing. If $d_i > 0$, add 0·5 to the relevant number above. If $d_i < 0$, subtract the relevant number above from 0·5.

CA 3.8: PUBLIC SECTOR FINANCIAL MANAGEMENT SUGGESTED SOLUTIONS

SOLUTION ONE

(a)

(i) Explain institutional arrangements that can improve risk management

- An established risk management policy – This should outline the conditions under which specific fiscal risks can be undertaken by government
- Clearly defined accountabilities – this should indicate the responsibilities of individual entities and accountabilities for identifying, responding to and monitoring specific risks
- A central risk oversight body – to allow the assessment of aggregate risk exposure and the identification of inter relationships and systems risk
- Central Controls over major risks – of particular importance when there is specific caps and limits on exposures or provision is undertaken. In such cases, decisions to take on risks should be assessed as part of the budget process.

(ii) State the risks management and control activities that need to be undertaken to manage identified risks.

- Tolerate – assessment is made that the risk can be tolerated without further action being taken or a decision is made that the risk cannot be directly addressed , but contingency plans can be put in place to mitigate the impacts of the risks should it arise.
- Treat – risks are treated by applying controls which fall in the following categories ; Preventive , Corrective, Directive and Detective
- Transfer – Risk can be transferred to third parties using insurance contracts or other similar mechanisms.

Terminate – Where the risk is so great, the only option is to terminate the activity.

(iii) Explain the benefits of Public Private Partnership to a Nation like country Z which is on an Economic Recovery Path.

- Access to private sector finance
- Efficiency advantages from using private sector skills and from transferring risk to the private sector
- Potentially increased transparency
- Enlargement of focus from only creating an asset to delivery of a service, including maintenance of the infrastructure asset during its operating lifetime
- This broadened focus creates incentives to reduce the full life-cycle costs (ie, construction costs and operating costs)

(iv) State how Public Sector outsourcing to private sector leads to cost reduction. Justify your answer using relevant examples

- Improved focus on core business activities - outsourcing can free up your business to focus on its strengths, allowing your staff to concentrate on their main tasks and on the future strategy
- Increased efficiency - choosing an outsourcing company that specializes in the process or service you want them to carry out for you can help you achieve a more productive, efficient service, often of greater quality
- Controlled costs - cost-savings achieved by outsourcing can help you release capital for investment in other areas of your business
- increased reach - outsourcing can give you access to capabilities and facilities otherwise not accessible or affordable
- Greater competitive advantage - outsourcing can help you leverage knowledge and skills along with your complete supply chain

(b) State how the financial objectives of Public Entities might change after privatization
Financial objectives may focus on Increasing shareholder wealth.
This will be achieved through-

- Increased productivity
- Increasing profit margins
- Increased market share
- Increased dividends

SOLUTION TWO

(a) Advantages of centralized treasury management system:

(1) Centralized liquidity management- cash is consolidated which avoids having a mix of cash surpluses and overdrafts in different local bank accounts. This facilitates bulk cash flows enabling lower bank charges.
(2) Consolidated view of cash requirements across the public sector – this enables central view of expected borrowing requirements and enable borrowing to be arranged in bulk which can provide for lower interest rates.
(3) Larger volumes of cash are available to invest – this provides better short term investment opportunities.
(4) Skilled and experienced staff- this enables employment of experts who have knowledge of borrowing and investment opportunities and the use of techniques such as hedging.
(5) Better control- centralization can enable the excise of better control through the use of standardized procedures and risk monitoring.

(b) Five Risks at NTC

1) Economic risks
Economic growth will raise private sector salaries. NTC will therefore be required to raise its salaries to attract staff.

2) Interest Rate Risks
The bank loan to be obtained by NTC may be exposing NTC to Interest rate risk- if the loan is a variable rate loan. This is the risk that a rise in market interest rates will increase the cost of the loan and impact NTC profits negatively.

3) Capacity and Capability-Insufficient Staff Numbers to manage operations
The understaffing currently being experienced at NTC may require expensive short term private staff especially during peak periods when demand for air travel is high.

4) Legal/ regulatory-Compulsory training.
The new employment legislation requiring all state owned enterprises to train their staff may expose NTC to increased staff and training costs.
5) Foreign exchange risks- this is due to the company operating in different countries. This will create exposure due to the need to pay in foreign currency for certain services.

SOLUTION THREE

(a) System of National framework (SNA) defines public sector as including all institutional units included within the General Government Sector and public corporations. An institutional unit is :

(i) Entitled to own goods or assets in its own right, and therefore able to exchange ownership of goods or assets in transactions with other institutional units;

(ii) Able to take economic decisions and engage in economic activities for which it is itself held directly responsible and accountable at law;

(iii) It is able to incur liabilities on its own behalf, to take on other obligations or future commitments and to enter into contracts.

(iv) It has a complete set of accounts, including a balance sheet of assets and liabilities, or it would be possible and meaningful from an economic viewpoint to complete set of accounts if required.

Under the SNA, the public sector therefore constitutes all government units, and those corporations that are controlled by the government and hence are public corporations (including corporations controlled by other public corporations).

The International Public Sector Accounting Standards Board (IPSASB) defines the public sector as including national and sub-national (regional, provincial and local) governments and related government entities such as public corporations.

(b) The differences between public sector financial management and private sector financial management arises mainly due to the relationships between citizens and the state, the economic and legal context in which public services are funded and delivered. Additional challenges also come from the political environment in which public sector operates. Some examples include:

i) The relationship between citizens and those who use services and the state is based on the rights, the public interest, and funding through taxation. In private sector individuals usually have a choice over whether to purchase goods and services and who to purchase them from. Meanwhile, in the public sector the public goods and services are provided by the state and must be funded by taxes or compulsory fees and charges.

ii) In public sector individuals and other entities are required to pay taxes in order for services to be made available. Government must spend the taxes in the public interest, to high standards of ethics and governance, and a manner that promotes value for money.

iii) In public sector, the Government is often the monopoly provider of public goods and services, and in the absence of the competition and a profit motive to determine a fair way in which to allocate scarce resources, achieving value for money can be challenging. While input measures may be readily available, measuring outputs and outcomes is also often far more difficult, which further complicates financial decision-making.

iv) There are many complex and competing objectives faced by governments, and operating in a political environment adds additional pressures. Delivery of certain services may be deemed necessary for wider social or political reasons, even if from a strict financial management perspective such decisions do not lead to an optimal use of resources.

v) Finally, in the public sector there is the challenge that can arise from other parts of government or external providers of funding, who may also have both legitimate expectations as to how resources will be utilised, and their own stakeholders to satisfy.

(c) The Ministry of Finance (MoF) in Zambia has a primary responsibility for economic and financial management. The MoF has two main functions which include:

i) Economic Management and Finance- overseeing economic management, financial management and internal control.

ii) Budget and Economic Affairs- involves preparation of the national annual budget and its implementation, responsibility for management of Government investments, and the development and implementation of effective debt management strategies.

SOLUTION FOUR

(a) (i) Value for Money is concerned with obtaining the best possible combination of services from the least resources. It is thus, the pursuit of economy, efficiency and effectiveness. Below are the mechanisms used to achieve *value for money* :

- *Economy*

Economy is the term and condition under which an organization acquires human and material resources of the appropriate quality and standard at the lowest cost. From this procurement will be a purchasing activity whose purpose is to give the purchaser best value for money and that for complex purchases, value may imply more than just price since quality issues also need to be addressed.

- *Efficiency*

Efficiency as the relationship between goods and services produced and resources used to produce them. An efficient operation produces the maximum output for any given set of resource inputs; or, it has a minimum input for any given quantity and quality of services provided In addition, efficiency implies practicality, especially in terms of compatibility with the government's administrative resources and professionalism.

- *Transparency & Accountability (Ethical Standards)*

Good procurement holds its practitioners responsible for enforcing and obeying the rules. It makes them subject to challenge and to sanction, if appropriate, for neglecting or bending those rules. Accountability is at once a key inducement to individual and institutional probity, a key deterrent to collusion and corruption, and a key pre-requisite for procurement credibility.

- *Accountability and fairness in public procurement*

Accountability and fairness are three cardinal pillars that procurement reforms seek to achieve in that a very fair and accountable procurement system helps in the efficient utilization of the state resources judiciously. Procurement practitioners need to be very fair in their day-to-day dealings with their suppliers and potential bidders and the public at large in order to earn the trust of the various actors within the procurement system. Accountability refers to the process of holding an individual or an organization fully responsible for actions and functions they are engaged in and over which they have authority to exercise those functions.

a) (ii) Government Fiscal Policy is the term used for government's policy of taxation. The primary fiscal policy objective of government is to ensure macroeconomic stability within the macroeconomic and fiscal framework of the country. Under the PFM Act 2018, the following principles guide the formulation of fiscal policy objective.

- Sufficient revenue mobilization to finance Government programs;
- Maintenance of prudent and sustainable levels of public debt;
- Ensuring that the fiscal balance is maintained at a sustainable level over the medium term;
- Management of fiscal risks in a prudent manner; and achieving efficiency, effectiveness and value for money in expenditure

(b) Budget Guidelines seek to provide clear instructions about the processes and procedures government departments and grant aided institutions should use to prepare their budget proposals and budget estimates.

Below are the importance of Budget Guidelines in Public Sector Accounting and Finance

- Control of aggregate expenditure to ensure affordability; that is, consistency with the macroeconomic constraints;
- Effective means for achieving a resource allocation that reflects expenditure policy priorities;
- Efficient delivery of public services (productive efficiency); and
- Minimization of the financial costs of budgetary management (i.e., efficient budget execution, and cash and debt management practices).

SOLUTION FIVE

(a) Explain the components of the pillar under the PEFA framework on Policy based on Fiscal Strategy.

- Macro- economic fiscal forecasting – measures the ability of a country to develop robust macroeconomic and fiscal forecasts and the government capacity to estimate the fiscal impact of changes in economic circumstances
- Fiscal Strategy – provides an analysis of the capacity to develop and implement a clear fiscal strategy , and the ability to develop and assess the fiscal impact of revenue and expenditure policy proposal that support the achievement of the government fiscal goals
- Medium – term perspective in expenditure budgeting - examines the extent to which expenditure are developed for the for the medium term within explicit medium term expenditure budget expenditure ceilings. Also examines the extent to which annual budgets are derived from medium term estimates and the alignment between medium term budget estimates and strategic plans.
- Budget preparation process- measures the effectiveness of participation of relevant stakeholders in the budget preparation process, including political leadership, and whether that participation is orderly and timely.
- Legislative scrutiny of Budgets – assesses the nature and extent of legislative scrutiny of the annual budget, including the existence of rules for in year amendments to the budget without ex – ante approval by the legislature .

(b) Explain the rationale of including Internal Control Annex in the PEFA Assessment.

According to international standards, internal control is an integral process designed to address risks and provide reasonable assurance that, in pursuit of the entity's mission, the following general objectives are being achieved:

- Executing orderly, ethical, economical, efficient, and effective operations;
- Fulfilling accountability obligations;
- Complying with applicable laws and regulations; and
- Safeguarding resources against loss, misuse and damage.

To achieve those general objectives, the internal control system should consist of five interrelated components:

- Control environment,
- Risk assessment,
- Control activities,
- Information and communication, and
- Monitoring.

This integrated approach is designed for public entities to establish effective controls customized to their objectives and risks.

(c) 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. This 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.

END OF SOLUTIONS